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May 6, 2016

The Honorable Jocelyn Boyd Chief Clerk and Administrator Public Service Commission of South Carolina 101 Executive Center Drive Columbia, South Carolina 29201

Re: Quarterly Report of SCE&G Concerning Construction of V.C. Summer

Nuclear Station Units 2 and 3

Dear Ms. Boyd:

Enclosed please find informational copies of South Carolina Electric and Gas Company's (the "Company" or "SCE&G) Quarterly Report (the "Report") for the period ending March 31, 2016, related to the construction of V.C. Summer Nuclear Stations Units 2 and 3 (the "Units"). This Report is being filed with the South Carolina Office of Regulatory Staff ("ORS") pursuant to the Base Load Review Act, S.C. Code Ann. § 58-33-277 (Supp. 2014) and the provisions of Order No. 2009-104(A) of the Public Service Commission of South Carolina (the "Commission").

Because this Report contains certain commercially sensitive information, SCE&G is filing both redacted (Public) and unredacted (Confidential) versions of this Report with the Commission and with ORS. For your convenience, we are providing you with ten (10) copies of the Public version of this Report. SCE&G is also providing one (1) copy of the Confidential version of this Report and is hereby petitioning the Commission to enter a confidentiality order protecting the commercially sensitive information contained therein from disclosure, as set forth below.

The Confidential version of this Report contains confidential information related to the pricing and pricing terms of the Engineering, Procurement and Construction Agreement (the "EPC Contract") between SCE&G and a consortium consisting of Westinghouse Electric Company, LLC and Chicago Bridge & Iron, formerly the Shaw Group, (collectively, the "Contractor"). The EPC Contract contains confidentiality provisions that require SCE&G to protect proprietary information that the Contractor believes to constitute trade secrets and to be commercially sensitive. The Contractor has requested that SCE&G maintain the confidentiality of certain information contained in **Appendix 2** and **Appendix 3**. This confidential information has been redacted from the Public Version of these appendices.



In keeping with the Contractor's request and the terms of the EPC Contract, SCE&G respectfully requests that the Commission find that the Confidential version of the Report contains protected information and issue a protective order barring the disclosure of certain portions of Appendix 2 and Appendix 3 of the Report under the Freedom of Information Act, S.C. Code Ann. §§ 30-4-10 et seq., 26 S.C. Code Ann. Regs. 103-804(S)(1), or any other provision of law, except in its public form. Pursuant to 26 S.C. Code Ann. Regs. 103-804(S)(2), the determination of whether a document may be exempt from disclosure is within the Such a ruling in this instance would be consistent with the Commission's discretion. Commission's prior rulings in Docket No. 2008-196-E, Docket No. 2009-211-E, Docket No. 2010-376-E, 2012-203-E, and Docket No. 2015-103-E. In those dockets, the Commission found, among other things, that the pricing and pricing terms of the EPC Contract are confidential, and issued a protective order barring the disclosure of such information. See. e.g., Commission Orders Nos. 2008-467, 2008-696, as amended by Order No. 2008-739, 2009-888 and 2010-198 issued in Docket No. 2008-196-E: Commission Order No. 2009-401 issued in Docket No. 2009-211-E; Commission Order Nos. 2010-795, 2011-127, and 2011-177 issued in Docket No. 2010-376-E; Commission Order Nos. 2012-415, 2012-621 and 2012-623 issued in Docket No. 2012-203-E; and Commission Order No. 2015-215 issued in Docket No. 2015-103-E.

To this end, and in accordance with Commission Order No. 2005-226, dated May 6, 2005, in Docket No. 2005-83-A, enclosed with this letter are the following:

- A true and correct copy of the Confidential version of the Report in a sealed envelope marked "CONFIDENTIAL." The title page of the Confidential version of the Report is marked "CONFIDENTIAL VERSION" and each page of the Confidential version of the Report is marked "CONFIDENTIAL VERSION."
- 2. Ten copies of a redacted Public version of the Report.

In the event that anyone should seek disclosure of the unredacted Confidential version of the Report, SCE&G respectfully requests that the Commission notify SCE&G of such request and provide it and the Contractor with an opportunity to obtain an order from this Commission or a court of competent jurisdiction protecting the Confidential version of this document from disclosure.

If you have any questions regarding these matters, please contact me.

Sincerely,

WOMBLE CARLYLE SANDRIDGE & RICE A Limited Liability Partnership

Belton T. Zeigler

Partner



cc: Anthony James, Director of Nuclear Development Shannon Bowyer Hudson, Esquire K. Chad Burgess, Associate General Counsel

V.C. Summer Nuclear Station Units 2 & 3

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Quarterly Report to the South Carolina Office of Regulatory Staff
Submitted by South Carolina Electric & Gas Company
Fursuant to Public Service Commission Order No. 2009-104(A)

Quarter Ending March 31, 2016

I. Introduction and Summary

A. Introduction

This quarterly report is submitted by South Carolina Electric & Gas Company (SCE&G or the Company) to the Public Service Commission of South Carolina (the Commission) and the South Carolina Office of Regulatory Staff (ORS). It is submitted in satisfaction of the requirements of S.C. Code Ann. § 58-33-277 (Supp. 2015) and the terms of Commission Order No. 2009-104(A). This report provides updated information concerning the status of the construction of V.C. Summer Nuclear Station (VCSNS) Units 2 and 3 (the Units) and provides the current capital cost forecasts and construction schedules for the Units as of the close of the quarter. All amounts set forth in this Quarterly Report are based on SCE&G's existing 55% interest, except where expressly stated to be based upon 100% of the cost.

In Order No. 2015-661, dated September 10, 2015, the Commission approved updated construction and capital cost schedules for the Units. The current schedules and forecasts presented in this report are compared against those approved in Order No. 2015-661.

B. Transition as a Result of the October 2015 EPC Amendment

The transition to Fluor Corporation (Fluor) as the new construction manager took place during the period. All craft personnel have transitioned to Fluor, which has begun to implement its recruiting and hiring process for additional craft labor.

To mitigate the construction schedule, Fluor has implemented changes to the schedules that construction crews are working. A limited night shift of approximately 300 craft workers is in place. Fluor plans to expand to a full night shift of more than 1,000 craft workers when hiring and training make this feasible. Availability and retention of labor is the principal limiting factor for mitigating the project schedule through a more aggressive labor schedule.

Since the Amendment was signed in the last quarter, Fluor has initiated or proposed a total of 28 Functional Area Assessments (FAAs) to improve project efficiency and schedule performance by assessing and restructuring individual work streams. These FAAs are being conducted in collaboration with Westinghouse Electric Company (WEC), SCE&G and Southern Nuclear Company (SNC). Fifteen FAAs have been initiated; seven FAAs are complete. The results of three are fully implemented. These initial FAAs have focused on safety, change management, quality control programs, commercial grade dedication, field engineering, construction programs/productivity, facilities plans, equipment plans and construction permitting. Fluor's review of the Integrated Project Schedule (IPS) continues and will incorporate changes due to the Amendment, the FAAs, and the analysis of schedule mitigation plans.

The new SCE&G Project Management Organization (PMO) aligns SCE&G's project management oversight with WEC's and Fluor's efforts. It has been implemented and is working effectively.

C. Structure of Report and Appendices

The current reporting period is the quarter ending March 31, 2016. The report is divided into the following sections:

Section I: Introduction and Summary;

Section II: Progress of Construction of the Units;

Section III: Anticipated Construction Schedules;

Section IV: Schedules of the Capital Costs Incurred Including Updates to the

Information Required by S.C. Code Ann. § 58-33-270(B)(6) (the

Inflation Indices);

Section V: Updated Schedule of Anticipated Capital Costs; and

Section VI: Conclusion.

Appendices 1, 2, and 4 to this report contain detailed financial, milestone and other information updating the schedules approved by the Commission in Order No. 2015-661. For reference purposes, Appendix 3 provides a copy of the capital cost schedule for the project as approved in Order No. 2015-661. Appendix 5 provides a list of the License Amendment Requests (LARs) filed by SCE&G with the Nuclear Regulatory Commission (NRC).

A confidential and a public version of this report and its attachments are being provided. Unless otherwise specified, all cost information reflects SCE&G's 55% share of

the project's cost in 2007 dollars. Attached to the end of the report is a glossary of acronyms and defined terms used.

D. Construction Schedule and Milestones

Milestones. There are 146 specific Base Load Review Act (BLRA) milestones for reporting purposes. As of March 31, 2016, 110 milestones have been completed. Of the remaining 36 milestones, 31 milestones have been delayed by 14 months or less.

Construction Costs and Cost Forecasts. Spending through December 31, 2016, in current dollars is forecasted to be approximately \$126 million less than the capital cost schedule approved in Order No. 2015-661. The present cash flow forecast provided by WEC indicates that the Company will be able to complete the Units for \$5.5 billion in 2007 dollars. These cost forecasts include the cost increases agreed to in the 2015 Amendment to the EPC Contract but do not reflect the exercise of the fixed price option that the Amendment grants to SCE&G and its partner in the project, Santee Cooper. SCE&G continues to evaluate this option.

Cost Comparisons. In Order No. 2009-104(A), the Commission recognized that forecasts of Allowance for Funds Used During Construction (AFUDC) and escalation would vary over the course of the project and required those forecasts to be updated with each quarterly report. Escalation indices were issued in November 2015 for the period of January through June 2015 and have been used in forecasting the construction costs for the project that are presented here.

Chart A below compares the current capital cost forecast to the forecast presented in the last quarterly report. This chart shows an increase in Gross Construction Costs of \$96 million over the life of the project. With each quarterly update, a quarter that had been subject to the five-year escalation rate becomes subject to the one-year rate. The figures reported on Chart A also include the effect of calculating escalation on an updated cash flow projection for the project.

Chart A: Reconciliation of Capital Cost (\$000)

Forecast Item	Projected @ 03/31/16 (Five-Year Average Escalation Rates)	Projected @ 12/31/15 (Five-Year Average Escalation Rates)	<u>Change</u>
Gross Construction	\$7,192,883	\$7,096,778	\$96,105
Less: AFUDC	\$297,301	\$291,755	\$5,546
Total Project Cash Flow	\$6,895,582	\$6,805,023	\$90,559
Less: Escalation	\$1,348,337	\$1,335,360	\$12,977
Capital Cost, 2007 Dollars	\$5,547,245	\$5,469,663	\$77,582

Chart B compares the current capital cost forecast to the forecast on which the Commission relied in adopting Order No. 2015-661. Chart B shows that the forecasted capital cost of the Units in 2007 dollars has increased to \$5.547 billion. The cost of the plant in future dollars has increased by approximately \$366 million since Order No. 2015-661 was issued.

Chart B: Reconciliation of Capital Cost (\$000)

Forecast Item	Projected @ 03/31/16 (Five-Year Average Escalation Rates)	As Forecasted and Approved In Order No. 2015-661	<u>Change</u>
Gross Construction	\$7,192,883	\$6,826,914	\$365,969
Less: AFUDC	\$297,301	\$279,790	\$17,511
Total Project Cash Flow	\$6,895,582	\$6,547,124	\$348,458
Less: Escalation	\$1,348,337	\$1,300,486	\$47,851
Capital Cost, 2007 Dollars	\$5,547,245	\$5,246,638	\$300,607

Chart C below shows the current forecast of the cost of the Units compared to the cost forecasts underlying the initial BLRA order, which was issued by the Commission in 2009, and the update orders that the Commission issued subsequently. The decline in capital cost forecasts in 2007 dollars between Order No. 2010-12 and 2011-345 reflects the removal of Owner's contingency amounts from the forecasts as required by the opinion of

the Supreme Court of South Carolina in South Carolina Energy Users Comm. v. South Carolina Pub. Serv. Comm'n, 388 S.C. 486, 697 S.E.2d 587 (2010). This chart shows that the cost of the project in 2007 dollars has increased by \$1.01 billion since the initial forecast and the cost of the project in future dollars is approximately \$880 million above the initial forecast.

Chart C: Summary of Nuclear Filings (billions of \$)

Forecast Item	Order No. 2009- 104(A)	<u>Order</u> <u>No.</u> 2010-12	Order No. 2011-345	Order No. 2012- 884	Order No. 2015- 661	Projected @_ 03/31/2016
Capital Cost, 2007 Dollars	\$4.535	\$4.535	\$4.270	\$4.548	\$5.247	\$5.547
Escalation	\$1.514	\$2.025	\$1.261	\$0.968	\$1.300	\$1.348
Total Project Cash Flow	\$6.049	\$6.560	\$5.531	\$5.517	\$6.547	\$6.895
AFUDC	\$0.264	\$0.316 ,	\$0.256	\$0.238	\$0.280	\$0.297
Gross Construction	\$6.313	\$6.875	\$5.787	\$5.755 	\$6.827	\$7.193

E. Escalation Rates

As provided in Order No. 2009-104(A), the most current one-year inflation indices are used to escalate costs occurring in the twelve-month period after the date of each quarterly report. The most current escalation indices are found in the Handy-Whitman July 2015 update that was issued in November 2015 and reports data for the period January to June 2015. Those rates are reflected in this report. The approved capital cost targets have been adjusted to reflect the currently reported historical escalation rates.

As shown on **Appendix 4**, utility construction cost escalation rates were at historically high levels during the period 2005-2008 and have since dropped. Current escalation rates are shown below on **Chart D**.

Chart D: Handy-Whitman Escalation Rates

Escalation I	Rate Comparison	·
	Jul-Dec 2014	Jan-June 2015
HW All Steam Index:		·
One-Year Rate	3.17%	3.27%
Five-Year Average	2.94%	2.90%
Ten-Year Average	4.08%	4.11%
HW All Steam/Nuclear Index:		
One-Year Rate	3.17%	3.44%
Five-Year Average	2.95%	2.97%
Ten-Year Average	4.10%	4.15%
HW All Transmission Plant Index:		
One-Year Rate	2.52%	1.66%
Five-Year Average	1.88%	1.94%
Ten-Year Average	3.81%	3.59%

F. AFUDC

Consistent with Order No. 2009-104(A), SCE&G computes AFUDC based on the Federal Energy Regulatory Commission (FERC) approved methodology as applied to the balance of Construction Work in Progress (CWIP) that is outstanding between rate adjustments. SCE&G's projected AFUDC rate is currently 5.82%, compared to the rate of 5.68% that applied when Order No. 2015-661 was issued.

G. Compliance with the Commission-Approved Cumulative Project Cash Flow Target

The current Cumulative Project Cash Flow target for the project was adopted by the Commission in Order No. 2015-661. In Order No. 2009-104(A), the Commission provided that the applicable Cumulative Project Cash Flow target would be adjusted with each quarterly report to reflect updated escalation data.

Appendix 2 provides the Commission-approved Cumulative Project Cash Flow target updated for current escalation data. The cash flow targets through December 2014 have been updated to reflect actual escalation rates. The cash flow targets for the first quarter of 2015 and beyond have been updated based on the most recently available

inflation indices, which for purposes of this report, are the indices provided in November 2015 that report data for the period January through June 2015. When final actual indices for 2015 become available, the cash flow data for 2015 will be revised to reflect the actual escalation rates.

Appendix 2 compares the approved Cumulative Project Cash Flow target to the current cumulative cash flow schedules for the project, which include actual costs where available and SCE&G's working forecasts of annual cash flows for future years.

II. Progress of Construction of the Units

A. Construction

The project continues to maintain an excellent safety record that exceeds industry expectations for projects of comparable size. While certain aspects of the work present challenges to the completion schedule, overall progress continues with approximately 3,700 contractor personnel and subcontractor workers on site daily. A majority of these jobs are held by South Carolina residents.

Shield Building construction remains a principal focus area for SCE&G's oversight of the project. The primary critical path for both Unit 2 and Unit 3 runs through the fabrication of the Shield Building components supplied by Newport News Industrial (NNI) and the completion of Shield Building construction. For Unit 3, the setting of two of the four major subassemblies of CA20, which was a prerequisite to concrete placement in certain areas of the Nuclear Island (NI), was completed during the quarter. The critical path now also runs through setting of the Containment Vessel Ring 1 and concrete placement in areas of the Unit 3 NI to form a foundation for the Shield Building.

A secondary critical path for Unit 3 construction includes the successful fabrication, assembly and setting in place of the CA01 module. Secondary critical paths for both Units includes the construction of the Annex Buildings to support energizing of the Units for system testing.

1. Unit 2 Inside-Containment Vessel (CV) Construction

During the period, Layer 5 East and Layer 6 and 7 West concrete were placed within the Unit 2 CV. Preparations are being made to place Layers 6 East with rebar installation in progress. Module CA02 is substantially complete, and final preparations are being made for it to be installed. Module CA02 forms part of the in-containment refueling water storage tank and pressurizer cubicle wall. Embedment plates and rebar are being readied to support placement of CA03 once it is assembled. Module CA03 is the back wall of the in-containment refueling water storage tank and is in active fabrication.

2. Unit 2 Containment Vessel (CV)

Installation of platforms on the interior of Unit 2 CV Ring 2 continues in preparation for setting this ring in place on top of Unit 2 CV Ring 1.

Welding and assembly of the Unit 2 CV Top Head, which closes the top of the CV, remains largely as reported last period as welding resources have been shifted to Shield Building construction. Acceptance rates based on the Radiographic Testing (RT) of welds on the Units 2 and 3 CV Rings and Top Head remain above 99%.

3. Unit 2 Shield Building Construction

Initial preparatory welding of Courses 3 through 6 of the 16 courses of Unit 2 Shield Building panels is complete. Course 3 has been set in place, and concrete has been placed within the portions of this wall that make up the West side of the Shield Building. Fabrication is underway for Courses 7 and 8. On-site welding of panels and other fabrication work is currently outstripping the pace of panel deliveries from NNI production. Construction of the East side of the Shield Building below course 7 utilizing reinforced concrete continues. Since the end of the reporting period, Course 4 has been set in place and welding is underway.

4. Unit 2 Annex Building

During the period, concrete was placed for the foundations for Areas 1 through 3 of the Unit 2 Annex Building. Structural steel is being erected for Areas 1 and 2 of that building. Piping and piping support fabrication is ongoing.

5. Unit 2 Auxiliary Building

Work is nearing completion on Unit 2 CA20, and final preparations are being made for placement of concrete within its walls. Concrete placement continued for multiple walls in the Unit 2 Auxiliary Building. Floors were installed in a number of locations. On-site fabrication of equipment module KB38 was completed, and that module is ready for placement in the Unit 2 Auxiliary Building.

Revision 1 to License Amendment Request (LAR) 30 was submitted this quarter to the NRC to resolve issues related to securing the steam and feed water piping penetrations in Wall 11 of the Auxiliary Building from possible tornado missile damage. The LAR proposes adding new barriers to penetration while taking into account the protective effects of certain existing walls that were not considered in prior evaluations.

6. Unit 2 Turbine Building

Placement of concrete slabs, structural steel, decking, stairways, piping and supports for the Unit 2 Turbine Building continues. During the period, the Unit 2 Feed Water Heaters 03A and 03B along with piping, valves and electrical equipment were placed in the Unit 2 Turbine Building.

7. Unit 3 Nuclear Island (NI)

Submodule Assemblies 3 and 4 of the Unit 3 CA20 module were lifted, set in place and aligned within the Unit 3 NI. They will be followed by Submodule Assemblies 1 and 2, which will complete the subassemblies forming the Unit 3 CA20 module. Final preparations are being made to place Layer 2 concrete within the Unit 3 NI and to transport the Unit 3 CV Ring 1 to position it to be lifted and set in place.

8. Unit 3 Containment Vessel (CV) Fabrication

Fabrication of the Unit 3 CV Top Head Welding and assembly of the Unit 3 CV Top Head, which closes the top of the CV, remains largely as reported last period as welding resources have been shifted to Shield Building construction.

9. Unit 3 Auxiliary Building

During the period, placement of the walls and floors of the Unit 3 Auxiliary Building continued.

10. Unit 3 Turbine Building

Staging, erection and bolt-up of Structural Steel Module CH81A for the Unit 3 Turbine Building were completed. Welding of the Unit 3 Lower Condenser internals continues outside the Turbine Building footprint.

11. Cooling Towers

Cooling Towers 2A, 3A and 3B are structurally complete. Cooling Tower 2B is 98% structurally complete. Work on the Unit 2 and Unit 3 Pump Basins continues.

12. Unit 2 High-Side of Switchyard

All ten transformers are in place in the Unit 2 High-Side of the Switchyard. Contractors have mobilized to begin construction for the foundations for the structures that will support the lines within the switchyard.

13. Unit 2-3 Switchyard

During the period, capacitors for the Unit 2-3 Switchyard were replaced in response to past failures. Further evaluation of the causes of these failures is ongoing.

14. Offsite Water System (OWS)

The OWS is substantially complete and work on recoating the storage tanks at the plant is proceeding.

B. Equipment and Fabrication

Approximately 85% of Unit 2 major equipment and 77% of Unit 3 major equipment have been delivered to the site. This amounts to approximately 80% of all major equipment for the project.

1. Unit 3 Reactor Vessel

The Unit 3 Reactor Vessel Closure Head was received on site during the reporting period. The Unit 2 Reactor Vessel Closure Head was already on site.

2. Steam Generators

Steam Generator 3B has been shipped and is currently in route to the site. One Reactor Coolant Pump (RCP) casing is now being welded to Steam Generator 3A. The welding of the second RCP easing to Steam Generator 3A has been delayed to allow remediation of a casing weld prep that showed indications in non-destructive testing. Remediation will take place at CES in Rock Hill, South Carolina, where the casing prep welds were initially prepared. Upon correction, the casing will be shipped to Doosan in South Korea to be attached to the 3A Steam Generator.

3. Reactor Coolant Pumps (RCPs)

All design and testing issues have been resolved with the RCPs. Fabrication is on-going, and the current delivery schedule supports the project's construction need dates.

4. Passive Residual Heat Removal (PRHR) Heat Exchangers

Supplemental Restraint Bars work resumed at the end of the quarter on the Unit 2 and Unit 3 PRHR Heat Exchangers at Mangiarotti's facilities in Italy. The event resulting in a factory stop work order at Mangiarotti that was reported last quarter has been resolved. Mangiarotti and WEC have determined that events

leading to the stop work order did not impact the AP1000 project work including work on the SCE&G PRHR heat exchangers.

5. Squib Valves

All outstanding design, licensing and testing issues related to Squib Valves have been resolved. All manufacturing of Unit 2 and Unit 3 Squib Valve parts has been completed. Assembly of all 14 inch and 8 inch Squib Valves for Unit 2 is complete, and assembly has begun on the 14 inch and 8 inch Squib Valves for Unit 3.

6. Information Technology

Site Fiber Optic System. Additional runs of fiber are being installed to meet location-specific requests as site development progresses.

Handover and Turnover of Proprietary Information. WEC continues to raise commercial issues regarding costs and payment responsibilities concerning the handover and turnover of proprietary information to SCE&G. The turnover of this information is required to support SCE&G's pre-operational testing and subsequent commercial operations of the Units. SCE&G is working independently from WEC to prepare for handover and turnover of this information.

WEC has decided to transfer all of the documents needed for handover and turnover of the Units to the Site Data Center, which will now be the primary source of documents and records to be turned over to SCE&G. Previously, it was envisioned that some of the required documents would come from the Site Data Center, and some would come from the record retention systems within WEC. Having a single primary source of documents will simplify the development and testing of the document delivery interface required for handover and turnover.

WEC is reconsidering its earlier decision not to use SCE&G's work management system (CMMS) for work management functions and lock-out-tag-out during pre-operational systems testing and turnover of the Units.

Configuration Management Information System (CMIS). During the period, SCE&G began configuration of its CMIS for the receipt of engineering documents and the Master Equipment List (MEL) for the Units from WEC. SCE&G's engineering group also continued the design of components in CMIS for information turnover and handover from WEC.

Work Management System (WMS). Implementation of the new WMS is being delayed so that modifications can be made as indicated in the initial testing of

the system at Unit 1. The delay is not anticipated to affect the operational readiness of the WMS to support testing of the Units.

7. Module and Shield Building Panel Fabrication and Assembly

Challenges related to fabrication of submodules continue to be a focus area of the project.

Module Production Schedule. As indicated in Section II.A, the fabrication and delivery of Shield Building components and structural submodules for the Unit 3 CA01 module are critical path items for the project. Accordingly, production of these components and submodules, and other structural and mechanical modules, remains a very important focus area for the project. SCE&G maintains a presence on site at CB&I-LC to monitor activities there and interact with CB&I-LC leadership on a regular basis. In addition to its other Quality Assurance/Quality Control (QA/QC) resources, SCE&G also maintains an inspector on site at NNI and Vigor/Greenberry. An inspector remains at Paxton & Vierling where platforms for the interior of the CV are being fabricated.

Design changes continue to be communicated by WEC to submodule fabrication vendors on a schedule that disrupts the fabrication process and delays submodule production. This is an area that WEC and Fluor are addressing as a focus area for improving schedule performance and construction efficiency.

WEC is de-scoping much of the submodule and mechanical modules work initially assigned to CB&I-LC and CB&I-Island Park and has authorized NNI to begin engineering and procurement work for the Shield Building Tension Rings and Air Intets.

To support this additional work and to advance schedule performance for its other Shield Building panel fabrication, NNI is implementing the mitigation plan to accelerate Shield Building panel fabrication that has been discussed in previous reports. NNI is expanding its production facilities and is securing staff augmentation through the use of subcontractors for additional skilled labor and shop space.

During the period, NNI has consistently supplied components within schedule commitments and with little or no quality issues. The current production schedule from NNI indicates substantial improvement in meeting required delivery dates. Only a small number of Shield Building panels are currently shown as requiring additional remediation to meet construction-need dates.

Unit 2 Modules and Submodules. Fabrication of the Unit 2 CA03 module is approximately 80% complete. All panels or panel kits comprising the Unit 2 CA03 module are on site. Of the 17 panels comprising the Unit 2 CA03 module, all but three had been upended and placed on the platen for welding by the end of the period.

Unit 2 and Unit 3 Air Inlet and Tension Rings. Initial fabrication schedules are being prepared for these components.

Unit 3 Modules and Submodules. All panels for Unit 3 CA20 have been received on site from Vigor and CBI-LC. Subassemblies 3 and 4 for Unit 3 CA20 have been fabricated and set on the Unit 3 NI. Subassemblies 1 and 2 are being fabricated.

Eighteen (18) of 47 submodules for the Unit 3 Module CA01 have been received on site from the Toshiba and IHI Corporation facilities in Japan. Six of these submodules have been upended and set in place in the Modular Assembly Building (MAB) for welding and fabrication.

The production schedule to date of Unit 3 CA01 submodules by Toshiba and IHI Corporation does not support the construction schedule for the Units. WEC continues to formulate plans with these vendors to mitigate these potential schedule delays. A number of these mitigation plans are focused on shortening transportation time from Japan.

Mechanical Modules. During the period, mechanical module work has been de-scoped from CB&I-Island Park in Beaumont, Texas. The materials are now on site, where Fluor will fabricate the modules. Westinghouse continues to de-scope mechanical modules from CB&I-LC where practical.

Shield Building Panels. One hundred seventeen (117) of the 167 Shield Building panels for Unit 2 Shield Building have been received on site from NNI. Thirty-five (35) of the Unit 3 Shield Building panels are on site.

Conclusion. Senior management from both SCE&G and WEC continue to monitor the fabrication and delivery process related to submodules and Shield Building panels. SCE&G maintains permanent resident inspectors at the CB&I-LC facility, the Paxton & Vierling facility, and the NNI facility. The Vigor and Greenberry facilities share a permanent resident inspector. The fabrication of the submodules continues to be an important area of focus for the project.

C. Quality Assurance (QA) and Quality Control (QC)

1. Overview

SCE&G's Quality Systems (QS) group continues to focus on the effective implementation of Quality Assurance Program (QAP) requirements by structural and mechanical module suppliers to the project. As part of this effort, SCE&G has continued its focus on CB&I's surveillance and audit activity at (i) Cives, a supplier of commercial grade steel plate and other steel products used in the project; (ii) CB&I-Laurens, which fabricates the bundles of piping (pipe spools) that are used in the production of submodules and mechanical modules; and (iii) Toshiba and IHI Corporation, the manufacturers of CA01 sub-modules.

2. Witness and Hold Point Oversight

SCE&G observed activities at EMD Curtiss Wright in Cheswick, Pennsylvania, associated with fabrication of the RCPs. No significant findings were issued.

SCE&G observed the final packaging, loading, and shipping of the Unit 3B Steam Generator at Doosan. Additionally, the Final Document Package associated with this component was reviewed. An ultrasonic testing evaluation on the weld prep indicated defects in one of the two casings for Steam Generator 3A. As indicated above, the casing in question is being shipped back to CES for repair.

3. Audits and Surveillance of CB&I Suppliers

SCE&G participated in WEC-led audits at Toshiba and IHI Corporation related to Module activities. A Condition Report (CR) was written to track adequate closure of a repeat issue at Toshiba concerning production material and gage handling.

SCE&G observed a WEC-led surveillance on Cives. Additionally, an observation was conducted on site of receipt inspection of embed plates from Cives. No significant issues were noted from either activity.

SCE&G participated in a supplier surveillance at CB&I-Laurens. The scope of the surveillance was to review previously identified findings from the last two supplier surveillances. Two findings were issued for ineffective implementation of corrective actions related to previously closed findings. However, CB&I-Laurens has shown improvement resulting from Enhanced Inspections performed by WEC on site.

PUBLIC VERSION

4. Storage and Preventative Maintenance of Equipment

SCE&G notified WEC concerning a condition adverse to quality related to ineffective corrective actions in the areas of storage and preventive maintenance. These items will be one of the focus areas for the upcoming site audit of WEC scheduled to commence in the second quarter.

5. On-Site Field Observations

SCE&G conducted 96 surveillances of site activities in the areas of fabrication, welding and non-destructive testing of Sub-Modules, Containment Vessels, Concrete placements, and Shield Building construction. No significant findings were identified.

6. Other On-Site Surveillance Activities

SCE&G conducted a surveillance to establish that CB&I Services implemented appropriate processes related to welding and bending. No significant issues were noted.

SCE&G conducted a surveillance on site of pipe spools received from CB&I-Laurens. The surveillance identified inadequate controls for ensuring procurement specifications in compliance with controlling procedures and hold tag procedures. These issues were communicated to the Site Quality Director for resolution.

7. Audits Observed By SCE&G

SCE&G observed a full-scope WEC audit of CB&I Stone & Webster's quality assurance program as a part of the acquisition of CB&I Stone & Webster by WEC. No significant findings were issued.

SCE&G observed an on-site audit of WEC's previously implemented American Society of Mechanical Engineers (ASME) III program. The purpose was to evaluate compliance with the governing ASME QA Manual. No significant findings were issued.

D. Licensing and Permitting and Regulatory Proceedings

As licensee for the Units, SCE&G is directly accountable to the NRC for contractors meeting nuclear safety-related QA/QC requirements both at the project site and at the facilities of its component manufacturers and equipment suppliers worldwide. WEC, through the EPC Contract, is responsible to SCE&G for making sure that these requirements are met.

1. NRC Inspections

During the period, the NRC Resident Inspectors issued their Fourth Quarter, 2015 Integrated Inspection Report. No findings were identified. The NRC conducted the following inspections during the period: (i) Diverse Actuation System (DAS)/Protection and Safety Monitoring System (PMS) Diversity ITAAC Inspection, (ii) Core Makeup Tank ITAAC Inspection, and (iii) Pressurizer Safety Valve ITAAC Inspection. There were no findings documented for these inspections.

An NRC audit determined that a supplier of embedment plates with welded-in-place rebar couplers had failed to conduct the specified non-destructive examination (NDE) of the welds. A sampling inspection program is underway to address this issue. Two license amendment requests, LAR 129 and LAR 140, will be required to justify the use of these couplers as acceptable. Indications are favorable that the issuance of these LARs can be justified.

2. License Amendment Requests (LARs)

During the period, SCE&G filed four new LARs with the NRC. The NRC has granted a total of 46 LARs. Four LARs were granted during the reporting period. Eighteen LARs were pending on March 31, 2016. For ease of reference, a report that tabulates all the LARs submitted by SCE&G to the NRC as of March 31, 2016, is attached as Appendix 5.

3. Inspections, Tests, Analyses and Acceptance Criteria (ITAAC)

During this period, SCE&G submitted six ITAAC Closure Notifications to the NRC. Of the 41 submitted ITAAC Closure Notifications, all have been verified complete and none are under review by the NRC.

4. Major Construction Permits

No major construction-related permits are outstanding. Other construction-related permits are anticipated to be obtained in the ordinary course of administering this project.

E. Engineering

1. Engineering Completion Status

As of March 31, 2016, the Units 2 and 3 plant design packages issued for construction (IFC) are 96% complete. Delivery of design documents for construction continues to be a focus area for SCE&G.

2. Site Specific Design Activities

Site specific design work is 95.1% complete.

F. Training

1. Certification of the Plant Simulators as Commission Approved Simulators (CASs)

SCE&G and WEC are pursuing a dual strategy to provide an NRC-approved plant simulator for conducting reactor operator licensing exams. One part of that strategy involves SCE&G requesting that the NRC approve the plant simulator as a CAS. Approval of the plant simulator as a CAS allows it to be used to administer NRC operator exams. At the end of this period, the NRC approved the SNC request for approval of their plant simulator as a CAS. SCE&G intends to resubmit its CAS application with amendments to reflect NRC comments in the SNC docket early in the second quarter of 2016.

2. Certification of the Plant Simulators as Plant Reference Simulators (PRSs)

A second part of the strategy to obtain an NRC-approved plant simulator to support reactor operator licensing involves approving the plant simulators as PRSs. Approval as PRSs will allow the plant simulators to be used not only to support training and licensing activities in the near term but also to support fuel loading and operation of the Units as they are completed.

Discussions continue among SNC, SCE&G, WEC and the NRC to develop a strategy to accomplish delivery of PRSs as soon as possible after resolution of the Integrated System Validation (ISV) items is reached. Currently, resolution is projected for second quarter of 2018, which does not support operator licensing timelines. The parties are evaluating whether it would be possible to achieve earlier PRS certification by certifying the current version of the plant simulator, which is Baseline 7, rather than seeking certification based on Baseline 8 or other subsequent versions of the simulators. Certifying Baseline 7 could accelerate the approval process and allow the plant simulator to be used for operator licensing sooner. Gap

training would be required to train operators on any differences between Baseline 7 and 8 software.

3. Initial Licensed Operator (ILO) Training

Due to challenges in gaining approval for a CAS and the associated uncertainties, the April 2016 licensed operator exam was rescheduled for September 2016. Conducting the exam on that date is contingent on obtaining approval of a plant simulator to be used in the simulator portion of the exam.

During the period, WEC provided SCE&G with software revisions that include the changes required to be made to the simulator software as a result of the ISV testing. Installing those changes required SCE&G to take the plant simulator off line for a significant period of time. The ILO class training for that exam that was rescheduled for September 2016 was placed on pause at the end of the simulator portion of the class, which was conducted using current versions of the simulator software. Training will recommence once simulator changes are installed and tested.

Current NRC examination guidelines allow only a thirty day gap between written and simulator portions of the licensing exam. It is not known when an approved plant simulator will be available for the simulator portion of the exam. As a result, SCE&G has requested the NRC to waive this requirement in reliance on the continuing training programs for successful candidates. The NRC is evaluating this request.

A third ILO class currently is scheduled to take the NRC written and simulator exam in December 2017.

4. Maintenance and Technical (M&T) Staff Training

During the period, trainees in the M&T programs completed the initial training sessions for their Tier 2 discipline-specific training.

It is anticipated that the Institute of Nuclear Power Operations (INPO) Initial Accreditation for the M&T program Accreditation Team Visit (ATV) will take place in the second quarter of 2017.

The schedule for development of maintenance training material continues and is on track to support the current Tier 3 (AP1000-specific training) schedule for maintenance and technical staff. SCE&G has committed supplemental personnel and resources to support training material development.

PUBLIC VERSION

G. Operational Readiness

1. Mission Critical Hiring

SCE&G has hired 25 of the 63 positions identified as mission critical for 2016. Forty of 141 positions have been hired toward the overall 2016 hiring goal. The number of New Nuclear Deployment (NND) positions filled to date is 556.

2. Development of Procedures to Support Simulator Training

SCE&G and SNC are reviewing System Operating Procedures and Surveillance Test Procedures that WEC is developing to support Baseline 8 of the Instrumentation and Control software for AP1000 Units. When approved, these procedures will be incorporated into the Baseline 8 versions of the plants simulators, which will be used to complete the training of Licensed Operators.

3. Training

Preparations are underway to begin Tier 1 and Tier 3 training for a second cohort of operations and maintenance personnel for the Units. Operations and maintenance personnel in the first cohort are periodically rotating to Unit 1 to perform work assignments that provide meaningful experience to supplement their training.

4. Operational Readiness Milestone Schedule

SCE&G continues developing and refining its Integrated Operational Readiness Schedule to assure alignment of operational readiness efforts with the integrated project schedule. SCE&G is also selecting a master list of operational readiness milestones that must be met to support plant operations and is developing an integrated milestone management process based on that list.

5. Initial Testing Program Components

Under the EPC Contract, SCE&G has a number of responsibilities related to the Initial Test Program (ITP) execution and support. SCE&G is working with WEC to better define lines of responsibility for the specific components of the ITP. The resulting agreements will be defined in a Division of Responsibility (DOR) document.

H. Change Control/Owners' Cost Forecast

The Amendment to the EPC Contract grants SCE&G the option to fix the price of work done under that contract through substantial completion of the Units, excluding future change orders for Owner's convenience or for uncontrollable circumstances and/or changes in law and excluding certain categories of Time and Materials work. During the period, SCE&G continued to evaluate the benefits of exercising this option, particularly in

light of the transition to Fluor as construction sub-contractor and the on-going work by Fluor to improve project efficiencies and mitigate schedule delays.

The Amendment resolved most of the change orders and notices of change outstanding as of December 31, 2015, the effective date of the October 2015 Amendment. However, it did not resolve claims associated with ten items listed on Exhibit C to the Amendment. Those items include several categories of start-up and testing support that SCE&G may request from Westinghouse later in the project, as well as change orders related to (i) Plant Layout Security Changes Phase 3, (ii) Unit 2 and 3 Site Security Computer Integration, and (iii) other matters. Furthermore, while the Amendment resolved outstanding claims through 2015, it did not resolve future costs associated with (i) the Corrective Action Program Interface (CAP-I), (ii) ITAAC Maintenance and (iii) the Patient Protection and Affordable Care Act (ACA). As to these items, Westinghouse intends to present change orders for annual costs for each year from 2016 onward.

In response to the Amendment and in anticipation of a BLRA update filing in the second quarter of 2016, SCE&G has revised its Owner's cost forecast to reflect changes in the Guaranteed Substantial Completion Date (GSCD) and other matters. The forecasted cost has increased \$20.8 million.

There were no new notices of change to report during this period.

1. CAP-I, ITAAC Maintenance, and ACA 2016 Change Orders

SCE&G anticipates receiving information quantifying the cost associated with the 2016 change orders for CAP-I and ITAAC Maintenance in the second quarter of 2016. SCE&G anticipates receiving information quantifying the cost associated with the 2016 change order for the ACA in the fourth quarter of 2016. In anticipation of the expected BLRA filing in the second quarter of 2016, SCE&G has estimated that the future costs associated with CAP-I and ITAAC will increase by approximately \$742,000. No increase is forecasted in relation to ACA.

2. Plant Layout Security Phase 3

SCE&G and Westinghouse are quantifying the costs associated with Plant Layout Security Phase 3, which includes such security modifications as additional fencing; Ballistic, Bullet, Resistant Enclosures (BBREs); specialized security equipment and infrared cameras. Site Security Phases 1 and 2 were resolved through the Amendment. SCE&G has not yet received a draft change order, but in anticipation of the expected BLRA filing in the second quarter of 2016, it has estimated the cost of the Plant Layout Security Phase 3 change order to be approximately \$29.6 million.

3. PMP (Probable Maximum Precipitation) Analysis

The PMP Analysis is a study of the response of the site drainage system to foreseeable high-rainfall events. SCE&G and Westinghouse have determined that the current study needs to be updated in light of security upgrades to the site and recommendations issued in response to the Fukushima event. The parties have been in disagreement as to whether updating the PMP is an Owner responsibility as a component of the Final Safety Analysis Report contained in the Combined Operating License (COL) or a Contractor responsibility as part of the Contractor's responsibility for establishing its programmatic controls/hold points for the site drainage system that are in compliance with the COL. The parties have agreed to divide this cost equally. SCE&G has not yet received a draft change order, but in anticipation of the expected BLRA filing in the second quarter of 2016, it has estimated the amount of the future change order to be approximately \$167,393.

4. Training Staff Augmentation

SCE&G has requested a Change Order from WEC for the costs of WEC staff to augment the V.C. Summer Units 2 and 3 Project NND Operations Training group. The change order would cover the cost of ten AP1000 Senior Reactor Operator (SRO) certified operations training instructors during 2016 and 2017 and would also reclassify the costs associated with seven instructors who provided support during 2015 and whose costs were billed as Time and Materials charges. SCE&G has not yet received a draft change order, but in anticipation of the expected BLRA filing in the second quarter of 2016, it has estimated the amount of the future change order to be approximately \$4.4 million.

5. Service Building Third Floor

SCE&G has reevaluated its facilities requirements in light of anticipated staffing levels and maintenance and operational support requirements. SCE&G has identified the need to expand the Unit 2 and 3 Service Building to provide additional shop space for the mechanical, electrical and instrumentation and control groups, as well as additional space to accommodate the site management and plant engineering support groups. This expansion will be accomplished by adding a third story to the building. A draft change order received subsequent to the close of this quarter estimates the cost to be approximately \$6.9 million.

6. Primavera Access (Extension of Change Order No. 10)

Change Order No. 10 provided the necessary licenses and software to allow the Owner to access for seven years the Westinghouse Primavera scheduling software where the detailed site construction schedule resides. An additional change order is required to extend these licenses to the new GSCDs for the Units. SCE&G has not yet received a draft change order, but in anticipation of the expected BLRA filing in the second quarter of 2016, it has estimated the amount of the future change order to be approximately \$45,000.

7. Escrow - Software & Documentation

Under the EPC Contract, SCE&G has the right to require WEC to deposit with a third party escrow agent the source code associated with certain software for operating and maintaining the Units as well as certain facility documentation. The escrow secures SCE&G's right to access the code and documentation if needed in the future. The Owner is responsible for the cost associated with establishing and maintaining the escrow. During the period, SCE&G exercised its right to require this escrow. SCE&G has not yet received a draft change order, but in anticipation of the expected BLRA filing in 2016, it has estimated the amount of the future change order to be approximately \$3.0 million.

8. Classroom Simulator

WEC has developed a scaled-down version of the simulator software that is suitable for use in a classroom setting in training AP1000 licensed operators. SCE&G has assessed this software and determined that it would relieve stress on the current simulator access schedule and support the schedule for licensed operator training. SCE&G is reviewing a draft change order from WEC for the software necessary to implement the classroom simulator system and estimates that the cost of the associated change order will be approximately \$451,000.

9. Plant Security Systems (SES) Integration

The EPC Contract provides for independent SESs for each of Units 2 and 3. The Owner has requested that the Contractor integrate the SESs so that the two systems would operate as one single functioning SES. SCE&G has not yet received a draft change order, but in anticipation of the expected BLRA filing in 2016, it has estimated the amount of the future change order to be approximately \$7.1 million.

10. Letter of Credit

The EPC Contract provides that if Toshiba's credit ratings reach certain levels, SCE&G may require WEC to post a bond equal to 15% of the highest three months billing during the applicable year. During the period, SCE&G requested such a bond in the amount of \$45 million which WEC provided in the form of two letters of credit. Under the EPC Contract, SCE&G must repay WEC for the cost of the letters of credit, which is approximately \$297,000 for the initial year. Payment would be made through the existing Time and Material budget and no change order is anticipated.

I. Transmission

1. The VCS2-St. George 230 kV Line No. 1 and the VCS2-St. George 230 kV Line No. 2

During the period, construction activities continued on the VCS2-St. George 230 kV Lines No. 1 and No. 2 for the line segment between Gaston and Orangeburg. These activities included continued installation of construction access and erosion control measures, spotting and framing of poles, removal of the existing line and installation of pole foundations.

2. St. George Switching Station

During the period, all relay panels were wired and tested and all circuit breakers were wired, tested and connected to the bus. All substation gravel was spread and all cable trench covers, markers and warning signs were installed. All remaining transmission lines were pulled, terminated and grounded. The station was energized along with the station service, which feeds the switch house and Critical Infrastructure Protection (CIP) hut. The station remains on schedule for completion in the second quarter of 2016.

3. Canadys-Sumter 230 kV line

During the period, construction activities continued on the rebuilding of the Canadys to St. George segment of the Canadys-Sumter 230 kV line to increase the capacity of the line. This segment consists of approximately 10.5 miles and will fold into the new St. George Switching Station. Construction activities during the quarter included installation of the remaining vibratory caissons and steel poles and installation of the conductor wire. The scheduled completion date is mid-2016.

4. Wateree-St. George-Williams 230 kV line

During the period, construction activities continued on the rebuilding of the St. George to Summerville segment of the Wateree-St. George-Williams 230 kV line to increase the capacity of the line. This segment consists of approximately 30.5 miles and will fold into the new St. George Switching Station. Construction activities during the quarter included continued installation of access roads, protective mats in wetlands areas and other construction access facilities. Construction activities within approximately the first two miles included spotting and framing of poles, installation of vibratory caissons, erection of poles and installation of conductor wire. The scheduled completion date is 2018.

5. Upgrades to the Unit 1 Switchyard

The Unit 1 Switchyard is currently interconnected to the transmission grid directly and through the Unit 2 and 3 Switchyard. SCE&G has determined that for the Unit 1 Switchyard to function reliably in this configuration, additional capacitors are required in that switchyard. The cost of those additions is anticipated to be approximately \$4.3 million.

III. Anticipated Construction Schedules

Until revised by the Commission, the milestone schedule approved in Order No. 2015-661 continues to be the operative milestone dates for reporting on the project. By the close of this period, 110 of the 146 milestones for reporting purposes are complete. Of the remaining 36 milestones, 31 have been delayed fourteen months or less compared to the schedule for the project as approved in Order No. 2015-661. None are outside of approved schedule contingencies.

Appendix 1 to this quarterly report lists and updates each of the specific milestones constituting the anticipated construction schedules for the Units pursuant to S.C. Code Ann. § 58-33-270(B)(1) and Order No. 2015-661.

IV. Schedules of the Capital Costs Incurred Including Updates to the Information Required by S.C. Code Ann. § 58-33-270(B) (6) (the Inflation Indices)

The Capital Costs section of this report (Section IV.A) provides an update of the cumulative capital costs incurred and forecasted to be incurred in completing the project. These costs are compared to the cumulative capital cost targets approved by the Commission in Order No. 2015-661. The approved capital cost targets have been adjusted to reflect the currently reported historical escalation rates. There has not been any use by the Company of the capital cost timing contingencies that were approved by the Commission in Order No. 2009-104(A). The Inflation Indices section (Section IV.B) of this report provides updated information on inflation indices and the changes in them.

A. Capital Costs

Appendix 2 shows the Cumulative Project Cash Flow target as approved in Order No. 2015-661 and as updated for escalation and other Commission-approved adjustments under the heading "Per Order 2015-661 Adjusted."

Appendix 2 also shows the cumulative cash flow for the project based on actual expenditures to date and the Company's current forecast of cost and construction schedules under the heading "Actual through March 2016 plus Projected."

As shown on Appendix 2, the projected expenditure for the project for the 12 months ending December 31, 2016, is approximately \$1.2 billion. As shown on Appendix 2, line 39, the cumulative amount projected to be spent on the project as of December 31, 2016, is approximately \$4.643 billion. As shown on Appendix 2, line 18, the Cumulative Project Cash Flow target approved by the Commission for year-end 2016 adjusted for current escalation is approximately \$4.782 billion. As a result, the cumulative cash flow at year-end 2016 is approximately \$139 million less than the target.

For comparison purposes, Appendix 3 sets out the cash flow schedule for the project as it was approved in Order No. 2015-661. Appendix 3 does not include any adjustments to the cash flow schedule for changes in inflation indices or adjustments in capital cost schedules made by the Company. The AFUDC forecast presented in Appendix 3 is the AFUDC forecast that was current at the time of Order No. 2015-661.

B. Inflation Indices

Appendix 4 shows the updated inflation indices approved in Order No. 2009-104(A). Included is a history of the annual Handy-Whitman All Steam Index, South Atlantic Region; the Handy-Whitman All Steam and Nuclear Index, South Atlantic Region; the Handy-Whitman All Transmission Plant Index, South Atlantic Region; and the Chained GDP Index for the past ten years.

V. Updated Schedule of Anticipated Capital Costs

The updated schedule of anticipated capital costs for Units 2 and 3 is reflected in Appendix 2.

VI. Conclusion

Under the Amendment, the scheduled completion dates for Units 2 and 3 are August 31, 2019 and 2020 respectively. The total project capital cost is now estimated at approximately \$5.5 billion (SCE&G's portion in 2007 dollars) or \$7.2 billion including escalation and allowance for funds used during construction (SCE&G's portion in future dollars).

The Company maintains a staff that monitors the work of its contractors and continues to monitor closely areas of concern related to the cost and schedule for the project. SCE&G continues to work diligently to ensure that the project is completed safely, that substantial completion dates are met and that all costs are reasonable. The Company will continue to update the Commission and the ORS of progress and concerns as the project proceeds.

Acronym or Defined Term	Reference
ACA	Affordable Care Act.
AFUDC	Allowance for Funds Used During Construction.
AP1000	The WEC designed Advanced Pressurized water nuclear reactor of approximately 1000 megawatts generating capacity.
APOG	A group of utilities who have submitted applications for AP1000 COLs.
ATV	Accreditation Team Visit- performed by the INPO.
BLRA	The Base Load Review Act, S.C. Code Ann. § 58-33-210 et seq. (Supp. 2009).
CA	The designation for specific pre-fabricated structural modules that form part of the reactor building or auxiliary building, such as Module CA20.
CAP	Corrective Action Program.
CAP-I	Corrective Action Program Interface.
CAR	A Corrective Action Report related to design, engineering or construction of the Units, or related processes, that must be corrected.
CAS	Commission (NRC) Approved Simulator.
CB&I	Chicago Bridge & Iron, a sub-contractor on the project which, upon acquisition of the Shaw Group, became a member of the Consortium and a prime contractor on the project.
CB&I-LC	CB&I Lake Charles - the module fabrication unit formerly known as Shaw Modular Solutions or SMS and located in Lake Charles, Louisiana.
CB&I Services	A subsidiary of CB&I that is fabricating the containment vessels on site under contract with Westinghouse.

	
Acronym or Defined Term	Reference
CES	Carolina Energy Solutions, a subcontractor located in Rock Hill, South Carolina.
CGD	Commercial Grade Dedication.
CIP	Critical Infrastructure Protection.
CMIS	Configuration Management Information System.
CMMS	Computerized Maintenance Management System.
COLs	Combined Operating Licenses for construction and operation of a nuclear unit issued by the NRC.
COLA	A Combined Operating License Application.
Commission	The Public Service Commission of South Carolina.
Consortium	The joint venture between WEC and Stone & Webster to construct the Units under the terms of the EPC Contract.
CR	A Condition Report communicating and memorializing concerns with the design, engineering or construction of the Units, or related processes, which in some cases can become the basis for a Corrective Action Report.
CV	The Containment Vessel which provides containment for the reactor vessel and associated equipment.
CVBH	The Containment Vessel Bottom Head that forms the bottom of the Containment Vessel.
CWIP	Construction Work in Progress.
CWP	Circulating Water Pipe.

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Acronym or Defined Term	Reference
CWS	The Circulating Water System -the system that will transport waste heat from the turbines to the cooling towers.
Cyber Security	Technologies, processes and practices designed to protect networks, computers, programs and data from attack, damage or unauthorized access.
DCD	Design Control Document which is approved by the Nuclear Regulatory Commission and sets forth the approved design of a nuclear reactor.
Departures	Departures are minor deviations from the approved Design Control Document included in the licensing basis for the Units that do not rise to the level requiring a LAR.
DOR	Division of Responsibility.
ECoE	WEC's Engineering Center of Excellence.
EMD	Electro-Mechanical Division of Curtiss-Wright Corp., the sub-contractor for the Reactor Coolant Pumps.
EPA	The United States Environmental Protection Agency.
EPC Contract	The Engineering, Procurement and Construction Agreement for construction of the Units entered into by SCE&G and WEC/CB&I.
ER	Equipment Reliability.
ERB	The Emergency Response Building which provides office space and housing for the emergency response personnel and equipment for all three units.
Exit Debriefing	A meeting held between the NRC and the licensee at the conclusion of an NRC inspection to discuss the results of the inspection.
FAS	First Article Survey.

Acronym or Defined Term	Reference
FERC	The Federal Energy Regulatory Commission.
Fixed/Firm	Prices under the EPC Contract which are either fixed or are firm but subject to defined escalation rates.
GDP	Gross Domestic Product.
HFE/ISV	Human Factors Engineering/Integrated Systems Validation -part of the development of a training simulator for the Units.
HL or Hot Leg	That part of the Reactor Cooling Loop that transports steam to the steam generators.
HLD	Heavy Lift Derrick – the derrick that was erected on site to move large modules and equipment.
IBF	Subcontractor of Tioga that manufactures the Reactor Coolant Loop piping.
I&C	Instrumentation and Control.
ICN	ITAAC Closure Notification – the letter from the licensee to notify the NRC that an ITAAC is complete in accordance with 10 CFR 52.99(c)(1).
ICP	Integrated Construction Plan.
IFC	Issued for Construction – engineering drawings that include information necessary for construction of specific structures, systems and components.
ILO	Initial Licensed Operator.
INPO	Institute of Nuclear Power Operations.
IPS	Integrated Project Schedule for licensing and construction of the Units.
ISV	Integrated Systems Validation.

Acronym or Defined Term	Reference	
ITAAC	Inspections, Tests, Analyses, and Acceptance Criteria which are the inspections, tests, analyses and acceptance criteria that the NRC has determined to be necessary and sufficient to demonstrate that a nuclear unit has been constructed and will operate in conformity with the COLs, the Atomic Energy Act of 1954, as amended, and the NRC's regulations.	
ITP	Initial Test Program.	
LAR	License Amendment Request – A formal request made by VCSNS to amend the combined operating license, its appendices, or its associated bases.	
LNTP	Limited Notice to Proceed authorizing a vendor to commence specific work.	
LSA	Limited Scope Audit.	
LSS	Limited Scope Simulator –a training simulator with limited functionality that can be used for the initial stages of operator training.	
M&T	Maintenance and Technical.	
MAB	Module Assembly Building - a building on site where large modules will be constructed and equipment will be prepared for installation in a space that is protected from the elements.	
Mangiarotti	Mangiarotti Nuclear, S.p.A.	
MEL _	Master Equipment List – a list that identifies the attributes for assets which are permanent plant equipment used in the plant.	
MTS	Maintenance Training Skid.	
NCV	Non-Cited Violations.	
NDÉ	Non-Destructive Examination.	

Acronym or Defined Term	Reference
NEI	Nuclear Energy Institute.
NI	Nuclear Island, comprising the steel containment vessel, the reactor building, and the auxiliary building.
NĻC	Nuclear Learning Center - a training facility operated by SCE&G at the Jenkinsville site.
NLO	Non-Licensed Operator.
NND	The New Nuclear Deployment Team within SCE&G.
NNI	Newport News Industrial - a module fabrication subcontractor to WEC/CB&I.
NON	Notice of Non-conformance.
NPDES	National Pollutant Discharge Elimination System.
NRC	The United States Nuclear Regulatory Commission.
NUPIC	Nuclear Procurement Issues CommitteeAn international association of nuclear utilities that conducts independent audits of companies involved in the nuclear supply chain.
ORS .	South Carolina Office of Regulatory Staff.
OWS .	Off Site Water System – the system that withdraws water from Monticello Reservoir and provides potable and filtered water for the Units.
PAR	Preliminary Amendment Request - A formal request made by VCSNS which allows VCSNS to proceed at its own risk with work consistent with an amendment request contained in an LAR prior to approval.

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Acronym or Defined Term	Reference
PDC	Power Distribution Center - prefabricated, modular enclosures housing electrical equipment such as switchgear, motor control center equipment and other auxiliary equipment.
Pike	Pike Energy Solutions, a contractor for transmission and switchyard related work.
PM	Preventative Maintenance.
РМО	Project Management Organization.
PO	Purchase Order.
PRA	Probabilistic Risk Assessment.
PRHR	The Passive Residual Heat Removal Heat Exchanger unit –a heat exchanger unit that is part of the passive safety system which provides cooling to the AP1000 reactor during emergency situations.
PRS	Plant Reference Simulator – a training simulator with full functionality that can be used in all stages of operator training.
PWS	The Potable Water System - which provides potable water to the site.
QA	Quality Assurance – The planned and systematic activities implemented in a quality system so that the quality requirements for a product or service will be fulfilled.
QAP	Quality Assurance Program.
QA/QC	Quality Assurance/Quality Control.
QC	Quality Control – The observation techniques and activities used to fulfill requirements for quality.
QMS	Quality Management System.

Acronym or Defined Term	Reference
QS	Quality Systems.
RAI	Requests for Additional Information issued by the NRC staff to license applicants.
RCA	Root Cause Analysis – identification and evaluation of the reason for non-conformance, an undesirable condition, or a problem which (when solved) restores the status quo.
RC/SC	Reinforced Concrete to Steel Component.
RCL	The Reactor Coolant Loop – the piping and related equipment that transports heat from the reactor to the steam generator.
RCP	The Reactor Cooling Pump which forms part of the Reactor Coolant System.
RCS	The Reactor Coolant System – the complete system for transferring and transporting heat from the reactor to the steam generator.
RFI	Requests for Information issued by the NRC staff to licensees.
ROW	Right-of-way.
RT	Radiographic Testing – a nondestructive testing method of inspecting materials for hidden flaws by using the ability of short wavelength electromagnetic radiation (high energy photons) to penetrate various materials.
RV	Reactor Vessel.
RWS	Raw Water System – the system for withdrawing and transporting raw water from the Monticello Reservoir.
SAT	Site Acceptance Testing.
SCDHEC	The South Carolina Department of Health and Environmental Control.
SCDNR	The South Carolina Department of Natural Resources.

ATTACHMENT 1

GLOSSARY OF ACRONYMS OR DEFINED TERMS

Acronym or Defined Term	Reference
SCE&G or The Company	South Carolina Electric & Gas Company.
SCPSC	The Public Service Commission of South Carolina.
SDS	Simulator Development System.
SER	Safety Evaluation Reporta report submitted to the NRC.
SMCI	MetalTek-SMCI Division.
SMS	Shaw Modular Solutions, LLC.
SNC	Southern Nuclear Company – a subsidiary of Southern Company and licensed operator of the Vogtle Nuclear Units and two other nuclear plants.
SRO	Senior Reactor Operator.
SROC	Senior Reactor Operator Certification.
Target	Costs under the EPC Contract where targets have been established but where SCE&G pays actual costs as incurred.
TEi	Thermal Engineering International – a subsidiary of Babcock Power which manufactures moisture separator reheaters and other power plant equipment.
Units	V. C. Summer Nuclear Station Units 2 & 3.
Update Decket	A proceeding under the BLRA seeking Commission approval of updated cost and construction schedules for the Units.
UPS	Uninterruptible Power Supply.
URI	Unresolved Items – A term used by the NRC during inspections for items that require further action.

ATTACHMENT 1

GLOSSARY OF ACRONYMS OR DEFINED TERMS

Acronym or Defined Term	Reference
USACOE	The United States Army Corps of Engineers.
VCSNS or VCSN	V. C. Summer Nuclear Station.
WEC	Westinghouse Electric Company, LLC.
WEC/CB&I	The consortium formed by Westinghouse Electric Company, LLC and CB&I.
WMS	Work Management System.
WRS	Waste Drain System.
WTP	The off-site Water Treatment Plant which will take water from Lake Monticello and treat it to potable water standards.
wws	The Waste Water System – the system for collection, treatment and disposal of domestic waste water generated on site.
YFS	The Yard Fire System – the system that provides fire detection and protection outside of the plant.
ZBS	The Offsite Power System –the system which provides electrical power to the site.

PUBLIC VERSION

APPENDIX 1

V. C. Summer Nuclear Station Units 2 & 3

Quarterly Report to the South Carolina Office of Regulatory Staff
Submitted by South Carolina Electric & Gas Company
Pursuant to Public Service Commission Order No. 2009-104(A)

Quarter Ending March 31, 2016

Appendix 1 lists and updates each of the milestones which the Commission adopted as the Approved Construction Schedule for the Units, pursuant to S.C. Code Ann. § 58-33-270(B)(1) in Order No. 2015-661. Appendix 1 provides columns with the following information:

- 1. Milestone tracking ID number.
- 2. The description of the milestone as updated in Order No. 2015-661.
- 3. The BLRA milestone date as approved by the Commission in Order No. 2015-661.
- 4. The current milestone date.
- 5. For each completed milestone, the date by which it was completed. For milestones completed prior to the current reporting quarter, the milestone entry is shaded in gray. For milestones completed during the current reporting quarter, the milestone entry is shaded in green.
- 6. Information showing the number of months, if any, by which a milestone has been shifted. For milestones with planned completion dates that vary in days instead of months, the milestone entry is shaded in yellow.
- 7. Information as to whether any milestone has been shifted outside of the +18/-24 Month Contingency approved by the Commission.
- 8. Notes.

On the final page of the document, there is a chart summarizing milestone completion and movement comparing the current milestone date to the milestone date approved in Order No. 2015-661. This movement is shown for only the milestones that have not been completed.

Appendix 1 VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	16-1Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
				The state of the			Charles are placed by the control of the con-
1	Approve Engineering Procurement and Construction Agreement	Complete		5/23/2008		No	
	Issue POs to nuclear component fabricators for Units 2 & 3	第18章 电影			Marie Marie		
2	Containment Vessels	Complete		12/3/2008		No	
	Contractor Issue PO to Passive Residual Heat Removal Heat				Harris Marie III		
3	Exchanger Fabricator - First Payment - Unit 2	Complete		8/18/2008		No	
4	Contractor Issue PO to Accumulator Tank Fabricator - Unit 2	Complete		7/31/2008	NET TALE Y	No	
5	Contractor Issue PO to Core Makeup Tank Fabricator - Units 2 & 3	Complete		9/30/2008		No	
6	Contractor Issue PO to Squib Valve Fabricator - Units 2 & 3	Complete	建设工程	3/31/2009		No	自由 原外等。在一步代表中
7	Contractor Issue PO to Steam Generator Fabricator - Units 2 & 3	Complete		5/29/2008		No	
8	Contractor Issue Long Lead Material PO to Reactor Coolant Pump Fabricator - Units 2 & 3	Complete		6/30/2008		No	
9	Contractor Issue PO to Pressurizer Fabricator - Units 2 & 3	Complete		8/18/2008		No	
10	Contractor Issue PO to Reactor Coolant Loop Pipe Fabricator - First Payment - Units 2 & 3	Complete		6/20/2008		No	
11	Reactor Vessel Internals - Issue Long Lead Material PO to Fabricator - Units 2 & 3	Complete		11/21/2008		No	
12	Contractor Issue Long Lead Material PO to Reactor Vessel Fabricator - Units 2 & 3	Complete		5/29/2008		No	
13	Contractor Issue PO to Integrated Head Package Fabricator - Units 2 & 3	Complete		7/31/2009		No	
14	Control Rod Drive Mechanism Issue PO for Long Lead Material to Fabricator - Units 2 & 3 - first payment	Complete		6/21/2008		No	
	Issue POs to nuclear component fabricators for Nuclear Island structural CA20 Modules	Complete		8/28/2009		No	
16	Start Site Specific and balance of plant detailed design	Complete		9/11/2007		No	
17	Instrumentation & Control Simulator - Contractor Place Notice to Proceed - Units 2 & 3	Complete		10/31/2008		No	

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Appendix 1 VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	16-1Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
18	Steam Generator - Issue Final PO to Fabricator for Units 2 & 3	Complete		6/30/2008	1世代海安圣经	No	
19	Reactor Vessel Internals - Contractor Issue PO for Long Lead Material (Heavy Plate and Heavy Forgings) to Fabricator - Units 2&3	Complete		1/29/2010		No	
20	Contractor Issue Final PO to Reactor Vessel Fabricator - Units 2&3	Complete		9/30/2008		No	
21	Variable Frequency Drive Fabricator Issue Transformer PO - Units 2&3	Complete		4/30/2009		No	
22	Start clearing, grubbing and grading	Complete		1/26/2009	36、注意4.8	No	没有关键图片。图像图像
23	Core Makeup Tank Fabricator Issue Long Lead Material PO - Units 2 & 3	Complete		10/31/2008		No	
24	Accumulator Tank Fabricator Issue Long Lead Material PO - Units 2&3	Complete		10/31/2008		No	
25	Pressurizer Fabricator Issue Long Lead Material PO - Units 2 & 3	Complete		10/31/2008		No	
26	Reactor Coolant Loop Pipe - Contractor Issue PO to Fabricator - Second Payment - Units 2 & 3	Complete		4/30/2009		No	
27	Integrated Head Package - Issue PO to Fabricator - Units 2 and 3 - second payment	Complete		7/31/2009		No	
28	Control Rod Drive Mechanisms - Contractor Issue PO for Long Lead Material to Fabricator - Units 2 & 3	Complete		6/30/2008		No	
29	Contractor Issue PO to Passive Residual Heat Removal Heat Exchanger Fabricator - Second Payment - Units 2 & 3	Complete		10/31/2008		No	
30	Start Parr Road intersection work	Complete	1 - To 1	2/13/2009	Alexander and the second	No	
31	Reactor Coolant Pump - Issue Final PO to Fabricator - Units 2 & 3	Complete		6/30/2008	最高过程的程	No	
32	Integrated Heat Packages Fabricator Issue Long Lead Material PO - Units 2 & 3	Complete		10/1/2009		No	
33	Design Finalization Payment 3	Complete		1/30/2009		No	STRUCK WAS TRUCKS
34	Start site development	Complete	HE TO THE	6/23/2008		No	
35	Contractor Issue PO to Turbine Generator Fabricator - Units 2 & 3	Complete		2/19/2009		No	

Legend = Completed = Completed this Quarter = Movement in Days Only

Appendix 1 VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	16-1Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
		o sales		朝鮮などり	计数据数据数据		
36	Contractor Issue PO to Main Transformers Fabricator - Units 2 & 3	Complete		9/25/2009		No	
	Core Makeup Tank Fabricator Notice to Contractor Receipt of Long		The state of the			No. 19 To See Line	
37	Lead Material - Units 2 & 3	Complete	10 600	12/30/2010		No	PROPERTY MARKET STATE
38	Design Finalization Payment 4	Complete		4/30/2009		No	A CONTRACTOR OF THE SAME AND A
39	Turbine Generator Fabricator Issue PO for Condenser Material - Unit 2	Complete		8/28/2009		No	
40	Reactor Coolant Pump Fabricator Issue Long Lead Material Lot 2 - Units 2 & 3	Complete		4/30/2009		No	
41	Passive Residual Heat Removal Heat Exchanger Fabricator Receipt of Long Lead Material - Units 2 & 3	Complete		5/27/2010		No	
42	Design Finalization Payment 5	Complete		7/31/2009		No	
43	Start erection of construction buildings, to include craft facilities for personnel, tools, equipment; first aid facilities; field offices for site management and support personnel; temporary warehouses; and construction hiring office	Complete	66 S	12/18/2009		No	
44	Reactor Vessel Fabricator Notice to Contractor of Receipt of Flange Nozzle Shell Forging - Unit 2	Complete		8/28/2009		No	
45	Design Finalization Payment 6	Complete		10/7/2009		No	医科尔德氏系统及原始性
46	Instrumentation and Control Simulator - Contractor Issue PO to Subcontractor for Radiation Monitor System - Units 2 & 3	Complete		12/17/2009		No	
47	Reactor Vessel Internals - Fabricator Start Fit and Welding of Core Shroud Assembly - Unit 2	Complete		7/29/2011		No	
48	Turbine Generator Fabricator Issue PO for Moisture Separator Reheater/Feedwater Heater Material - Unit 2	Complete	- A	4/30/2010		No	
49	Reactor Coolant Loop Pipe Fabricator Acceptance of Raw Material - Unit 2	Complete		2/18/2010		No	
50	Reactor Vessel Internals - Fabricator Start Weld Neutron Shield Spacer Pads to Assembly - Unit 2	Complete		8/28/2012		No	

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Appendix 1 VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	16-1Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
51	Control Rod Drive Mechanisms - Fabricator to Start Procurement of Long Lead Material - Unit 2	Complete		6/30/2009	19-45-5	No	
	Contractor Notified that Pressurizer Fabricator Performed Cladding on Bottom Head - Unit 2	Complete		12/23/2010		No	AND THE RESERVE OF THE PARTY OF
53	Start excavation and foundation work for the standard plant for Unit 2	Complete		3/15/2010		No	
54	Steam Generator Fabricator Notice to Contractor of Receipt of 2nd Steam Generator Tubesheet Forging - Unit 2	Complete		4/30/2010		No	
55	Reactor Vessel Fabricator Notice to Contractor of Outlet Nozzle Welding to Flange Nozzle Shell Completion - Unit 2	Complete		12/30/2010		No	
56	Turbine Generator Fabricator Notice to Contractor Condenser Fabrication Started - Unit 2	Complete		5/17/2010		No	
57	Complete preparations for receiving the first module on site for Unit 2	Complete		1/22/2010		No	
58	Steam Generator Fabricator Notice to Contractor of Receipt of 1st Steam Generator Transition Cone Forging - Unit 2	Complete		4/21/2010		No	
59	Reactor Coolant Pump Fabricator Notice to Contractor of Manufacturing of Casing Completion - Unit 2	Complete		11/16/2010		No	
60	Reactor Coolant Loop Pipe Fabricator Notice to Contractor of Machining, Heat Treating & Non-Destructive Testing Completion - Unit 2	Complete		3/20/2012		No	
61	Core Makeup Tank Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 2	Complete		11/26/2012		No	
62	Polar Crane Fabricator Issue PO for Main Hoist Drum and Wire Rope - Units 2 & 3	Complete		2/1/2011		No	
63	Control Rod Drive Mechanisms - Fabricator to Start Procurement of Long Lead Material - Unit 3	Complete		6/14/2011		No	
64	Turbine Generator Fabricator Notice to Contractor Condenser Ready to Ship - Unit 2	Complete		3/26/2012		No	
65	Start placement of mud mat for Unit 2	Complete	国的规律工作	7/20/2012		No	HESE TRANSPORTS

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Appendix 1 VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	16-1Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
66	Steam Generator Fabricator Notice to Contractor of Receipt of 1st Steam Generator Tubing - Unit 2	Complete		9/28/2010		No	
67	Pressurizer Fabricator Notice to Contractor of Welding of Upper and Intermediate Shells Completion - Unit 2	Complete		10/28/2011		No	
68	Reactor Vessel Fabricator Notice to Contractor of Closure Head Cladding Completion - Unit 3	Complete		6/28/2012		No	
69	Begin Unit 2 first nuclear concrete placement	Complete	使用的现在分 型	3/9/2013	建筑。建筑	No	经过多的
70	Reactor Coolant Pump Fabricator Notice to Contractor of Stator Core Completion - Unit 2	Complete		12/1/2011		No	
71	Fabricator Start Fit and Welding of Core Shroud Assembly - Unit 2	Complete	人 。但是这些人	7/29/2011	1317-134	No	四智涛出程。
72	Steam Generator Fabricator Notice to Contractor of Completion of 1st Steam Generator Tubing Installation - Unit 2	Complete		1/27/2012		No	
73	Reactor Coolant Loop Pipe-Shipment of Equipment to Site - Unit 2	Complete		12/19/2013		No	
74	Control Rod Drive Mechanism - Ship Remainder of Equipment (Latch Assembly & Rod Travel Housing) to Head Supplier - Unit 2	Complete	The state of the s	7/16/2012		No	
75	Pressurizer Fabricator Notice to Contractor of Welding of Lower Shell to Bottom Head Completion - Unit 2	Complete		12/22/2011	7	No	
76	Steam Generator Fabricator Notice to Contractor of Completion of 2nd Steam Generator Tubing Installation - Unit 2	Complete		5/4/2012		No	
77	Design Finalization Payment 14	Complete	美洲面科技	10/31/2011	775-77	No	
78	Set module CA04 for Unit 2	Complete	102150000	5/3/2014	西尼兰 图 200	No	
79	Passive Residual Heat Removal Heat Exchanger Fabricator Notice to Contractor of Final Post Weld Heat Treatment - Unit 2	Complete		5/24/2011		No	
80	Passive Residual Heat Removal Heat Exchanger Fabricator Notice to Contractor of Completion of Tubing - Unit 2	Complete	1 41	5/29/2012		No	
81	Polar Crane Fabricator Notice to Contractor of Girder Fabrication Completion - Unit 2	Complete		10/23/2012		No	
82	Turbine Generator Fabricator Notice to Contractor Condenser Ready to Ship - Unit 3	Complete		8/26/2013		No	

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Appendix 1 VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	16-1Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
83	Set Containment Vessel ring #1 for Unit 2	Complete		6/3/2014	10 [10] [10]	No	数据的例如那种表现的形式
84	Reactor Coolant Pump Fabricator Delivery of Casings to Port of Export - Unit 2	Complete		7/6/2013		No	
85	Reactor Coolant Pump Fabricator Notice to Contractor of Stator Core Completion - Unit 3	Complete		7/18/2013		No	
86	Reactor Vessel Fabricator Notice to Contractor of Receipt of Core Shell Forging - Unit 3	Complete		3/29/2012		No	
87	Contractor Notified that Pressurizer Fabricator Performed Cladding on Bottom Head - Unit 3	Complete		11/9/2011		No	
88	Set Nuclear Island structural module CA03 for Unit 2	12/28/2015	6/22/2016		+6 Month(s)	No	Delay due to schedule refinement and schedule resequencing.
89	Squib Valve Fabricator Notice to Contractor of Completion of Assembly and Test for Squib Valve Hardware - Unit 2	Complete		5/10/2012		No	
90	Accumulator Tank Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 3	Complete		9/16/2013		No	
91	Polar Crane Fabricator Notice to Contractor of Electric Panel Assembly Completion - Unit 2	Complete	5641	3/6/2013		No	
92	Start containment large bore pipe supports for Unit 2	Complete	4 1000	11/13/2014		No	
93	Integrated Head Package - Shipment of Equipment to Site - Unit 2	Complete		5/9/2014		No	
94	Reactor Coolant Pump Fabricator Notice to Contractor of Final Stator Assembly Completion - Unit 2	Complete		12/17/2013		No	
95	Steam Generator Fabricator Notice to Contractor of Completion of 2nd Steam Generator Tubing Installation - Unit 3	Complete		2/7/2014		No	
96	Steam Generator Fabricator Notice to Contractor of Satisfactory Completion of 1st Steam Generator Hydrotest - Unit 2	Complete		1/14/2013	大学	No	
97	Start concrete fill of Nuclear Island structural modules CA01 and CA02 for Unit 2	7/18/2016	11/8/2016		+4 Month(s)	No	Delay due to schedule refinement and schedule resequencing.

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Appendix 1 VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	16-1Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
14001 (1372-2011)	Passive Residual Heat Removal Heat Exchanger - Delivery of Equipment to Port of Entry - Unit 2	Complete		4/25/2014		No	
99	Refueling Machine Fabricator Notice to Contractor of Satisfactory Completion of Factory Acceptance Test - Unit 2	Complete		1/8/2015		No	
100	Deliver Reactor Vessel Internals to Port of Export - Unit 2	Complete	A STATE OF THE STA	1/29/2016	TO SEE STATE OF	No	EAST TO THE PARTY OF THE PARTY
101	Set Unit 2 Containment Vessel #3	8/23/2016	11/28/2016		+3 Month(s)	No	Delay due to schedule refinement and schedule re- sequencing.
102	Steam Generator - Contractor Acceptance of Equipment at Port of Entry - Unit 2	Complete		1/16/2015		No	
103	Turbine Generator Fabricator Notice to Contractor Turbine Generator Ready to Ship - Unit 2	Complete		5/28/2013		No	
104	Pressurizer Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 3	Complete		3/28/2015		No	
105	Polar Crane - Shipment of Equipment to Site - Unit 2	12/31/2015	5/30/2016		+5 Month(s)	No	Delay due to schedule refinement and schedule resequencing.
106	Receive Unit 2 Reactor Vessel on site from fabricator	Complete	4912 - 100	7/31/2013		No	Marie Contract Contract
107	Set Unit 2 Reactor Vessel	8/9/2016	9/2/2016		+1 Month(s)	No	Delay due to schedule refinement and schedule re- sequencing.
	Steam Generator Fabricator Notice to Contractor of Completion of 2nd Channel Head to Tubesheet Assembly Welding - Unit 3	Complete		4/24/2015		No	
109	Reactor Coolant Pump Fabricator Notice to Contractor of Final Stator Assembly Completion - Unit 3	10/30/2015	6/30/2016		+8 Month(s)	No	Delay due to schedule refinement and schedule re- sequencing.
110	Reactor Coolant Pump - Shipment of Equipment to Site (2 Reactor Coolant Pumps) - Unit 2	5/30/2016	2/28/2017		+9 Month(s)	No	Delay due to schedule refinement and schedule resequencing.
111	Place first nuclear concrete for Unit 3	Complete		11/2/2013		No	
112	Set Unit 2 Steam Generator	10/10/2016	10/29/2016		0	No	REPORT OF THE PROPERTY.

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Appendix 1 VC Summer Units 2 and 3

Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	16-1Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes
113	Main Transformers Ready to Ship - Unit 2	Complete		7/31/2013	Park Carteria	No	2.65 (ATT) (ATT) (ATT)
	Complete Unit 3 Steam Generator Hydrotest at fabricator	Complete		8/21/2015		No	
115	Set Unit 2 Containment Vessel Bottom Head on basemat legs	Complete		5/22/2013		No	
116	Set Unit 2 Pressurizer Vessel	8/23/2016	3/21/2017		+7 Month(s)	No	Delay due to schedule refinement and schedule re- sequencing.
117	Reactor Coolant Pump Fabricator Notice to Contractor of Satisfactory Completion of Factory Acceptance Test - Unit 3	1/31/2017	7/1/2017		+6 Month(s)	No	Delay due to schedule refinement and schedule re- sequencing.
118	Deliver Reactor Vessel Internals to Port of Export - Unit 3	12/31/2016	8/11/2017		+8 Month(s)	No	Delay due to schedule refinement and schedule re- sequencing.
119	Main Transformers Fabricator Issue PO for Material - Unit 3	Complete		1/15/2015		No	医性的计算器 医克拉克氏 医
120	Complete welding of Unit 2 Passive Residual Heat Removal System piping	1/16/2017	3/29/2017		+2 Month(s)	No	Delay due to schedule refinement and schedule resequencing.
121	Steam Generator - Contractor Acceptance of Equipment at Port of Entry - Unit 3	1/30/2016	9/30/2016		+8 Month(s)	No	Delay due to schedule refinement and schedule re- sequencing.
122	Refueling Machine - Shipment of Equipment to Site - Unit 3	3/27/2016	5/15/2017		+14 Month(s)	No	Delay due to schedule refinement and schedule re- sequencing.
123	Set Unit 2 Polar Crane	12/19/2016	5/6/2017		+5 Month(s)	No	Delay due to schedule refinement and schedule re- sequencing.
124	Reactor Coolant Pumps - Shipment of Equipment to Site - Unit 3	4/30/2017	9/1/2017		+5 Month(s)	No	Delay due to schedule refinement and schedule resequencing.
125	Main Transformers Ready to Ship - Unit 3	Complete		7/29/2015		No	
126	Spent Fuel Storage Rack - Shipment of Last Rack Module - Unit 3	Complete		9/3/2015		No	
127	Start electrical cable pulling in Unit 2 Auxiliary Building	11/29/2016	10/6/2016		-1 Month(s)	No	

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Appendix 1 VC Summer Units 2 and 3

Complete Unit 2 Reactor Coolant System cold hydro 2/19/2018 4/19/2018 +2 Month(s) No sequencing.	Notes
Tefinement Tef	lue to schedule
Complete Unit 2 Reactor Coolant System cold hydro 2/19/2018 4/19/2018 +2 Month(s) No sequencing.	nent and schedule re-
129 Activate class 1E DC power in Unit 2 Auxiliary Building 6/22/2017 6/24/2017 0 No Delay due to refinement is sequencing. Delay due to refinem	
Delay due to refinement 131 Install Unit 3 ring 3 for containment vessel 2/27/2017 12/4/2017 +10 Month(s) No sequencing. Delay due to refinement 132 Load Unit 2 nuclear fuel 12/21/2018 1/15/2019 +1 Month(s) No sequencing. Delay due to refinement 133 Unit 2 Substantial Completion 6/19/2019 7/26/2019 +1 Month(s) No sequencing. Delay due to refinement 134 Set Unit 3 Reactor Vessel 5/26/2017 10/11/2017 +5 Month(s) No sequencing. Delay due to refinement 135 Set Unit 3 Steam Generator #2 9/22/2017 12/15/2017 +3 Month(s) No sequencing. Delay due to refinement 136 Set Unit 3 Pressurizer Vessel 11/27/2017 1/29/2018 +2 Month(s) No sequencing. Delay due to refinement 136 Set Unit 3 Pressurizer Vessel 11/27/2017 1/29/2018 +2 Month(s) No sequencing. Delay due to refinement 137 Delay due to refinement 138 Set Unit 3 Pressurizer Vessel 11/27/2017 1/29/2018 +2 Month(s) No sequencing. Delay due to refinement 137 Delay due to refinement 138 Set Unit 3 Pressurizer Vessel 11/27/2017 1/29/2018 +2 Month(s) No sequencing. Delay due to refinement 137 Delay due to refinement 138 Set Unit 3 Pressurizer Vessel 11/27/2017 1/29/2018 +2 Month(s) No sequencing. Delay due to refinement 139 Delay due to refinement 130 Sequencing Delay due to refinement 130 Sequencing Delay due to refinement 130 Sequencing 1/29/2018	minable and the second
130 Complete Unit 2 hot functional test Syz3/2018 7/21/2018 +2 Month(s) No sequencing.	lue to schedule
Delay due to refinement. 131 Install Unit 3 ring 3 for containment vessel 2/27/2017 12/4/2017 +10 Month(s) No sequencing. Delay due to refinement. 132 Load Unit 2 nuclear fuel 12/21/2018 1/15/2019 +1 Month(s) Delay due to refinement. 133 Unit 2 Substantial Completion 6/19/2019 7/26/2019 +1 Month(s) Delay due to refinement. 134 Set Unit 3 Reactor Vessel 5/26/2017 10/11/2017 +5 Month(s) Delay due to refinement. 135 Set Unit 3 Steam Generator #2 9/22/2017 12/15/2017 +3 Month(s) Delay due to refinement. 136 Set Unit 3 Pressurizer Vessel 11/27/2017 1/29/2018 +2 Month(s) Complete welding of Unit 3 Passive Residual Heat Removal System 1/29/2018 2/8/2018 +1 Month(s) No sequencing.	nent and schedule re-
refinement is sequencing. Load Unit 2 nuclear fuel 132 Load Unit 2 nuclear fuel 133 Unit 2 Substantial Completion 134 Set Unit 3 Reactor Vessel 135 Set Unit 3 Steam Generator #2 136 Set Unit 3 Pressurizer Vessel 137 Load Unit 3 Pressurizer Vessel 138 Load Unit 3 Pressurizer Vessel 139 Load Unit 2 nuclear fuel 12/21/2018 1/15/2019 1/29/2018 1/15/2019 1/29/2018	cing.
131 Install Unit 3 ring 3 for containment vessel 2/27/2017 12/4/2017 +10 Month(s) No sequencing. Delay due to refinement. 132 Load Unit 2 nuclear fuel 12/21/2018 1/15/2019 +1 Month(s) No sequencing. Delay due to refinement. 133 Unit 2 Substantial Completion 6/19/2019 7/26/2019 +1 Month(s) No sequencing. Delay due to refinement. 134 Set Unit 3 Reactor Vessel 5/26/2017 10/11/2017 +5 Month(s) No sequencing. Delay due to refinement. 135 Set Unit 3 Steam Generator #2 9/22/2017 12/15/2017 +3 Month(s) No sequencing. Delay due to refinement. 136 Set Unit 3 Pressurizer Vessel 11/27/2017 1/29/2018 +2 Month(s) No sequencing. Complete welding of Unit 3 Passive Residual Heat Removal System 1/29/2018 2/8/2018 +1 Month(s) No sequencing.	lue to schedule
Delay due to refinement a sequencing. Unit 2 Substantial Completion 6/19/2019 7/26/2019 133 Unit 2 Substantial Completion 6/19/2019 7/26/2019 14 Month(s) No sequencing. Delay due to refinement a sequencing. Complete welding of Unit 3 Passive Residual Heat Removal System 137 piping 1/29/2018	nent and schedule re-
132 Load Unit 2 nuclear fuel 12/21/2018 1/15/2019 +1 Month(s) 133 Unit 2 Substantial Completion 134 Set Unit 3 Reactor Vessel 135 Set Unit 3 Steam Generator #2 136 Set Unit 3 Pressurizer Vessel 137 Set Unit 3 Pressurizer Vessel 138 Set Unit 3 Pressurizer Vessel 139 Set Unit 3 Pressurizer Vessel 130 Set Unit 3 Pressurizer Vessel 131 Set Unit 3 Pressurizer Vessel 132 Set Unit 3 Pressurizer Vessel 133 Set Unit 3 Pressurizer Vessel 134 Set Unit 3 Pressurizer Vessel 157 Set Unit 3 Pressurizer Vessel 165 Set Unit 3 Pressurizer Vessel 172 Set Unit 3 Pressurizer Vessel 173 Set Unit 3 Pressurizer Vessel 174 Set Unit 3 Pressurizer Vessel 175 Set Unit 3 Pressurizer	
132 Load Unit 2 nuclear fuel 12/21/2018 1/15/2019 +1 Month(s) No sequencing. Delay due to refinement a sequencing. Set Unit 3 Reactor Vessel 135 Set Unit 3 Steam Generator #2 9/22/2017 12/15/2017 +3 Month(s) No sequencing. Delay due to refinement a sequencing. Complete welding of Unit 3 Passive Residual Heat Removal System piping 1/29/2018 2/8/2018 +1 Month(s) No sequencing.	lue to schedule
Delay due to refinement a sequencing. 133 Unit 2 Substantial Completion 6/19/2019 7/26/2019 +1 Month(s) No sequencing. Delay due to refinement a sequencing. Complete welding of Unit 3 Passive Residual Heat Removal System piping 1/29/2018 1/29/2018 2/8/2018 +1 Month(s) No sequencing.	nent and schedule re-
133 Unit 2 Substantial Completion 6/19/2019 7/26/2019 +1 Month(s) Delay due to refinement a sequencing. Delay due to refinement a sequencing. 134 Set Unit 3 Reactor Vessel 135 Set Unit 3 Steam Generator #2 9/22/2017 12/15/2017 +3 Month(s) Delay due to refinement a sequencing. Complete welding of Unit 3 Passive Residual Heat Removal System 137 piping 1/29/2018 2/8/2018 +1 Month(s) No sequencing.	
Unit 2 Substantial Completion 6/19/2019 7/26/2019 +1 Month(s) No sequencing. Delay due to refinement and the sequencing. Set Unit 3 Reactor Vessel 135 Set Unit 3 Steam Generator #2 9/22/2017 12/15/2017 +3 Month(s) No sequencing. Delay due to refinement and the sequencing. Delay due to refinement and the sequencing. Delay due to refinement and the sequencing. Complete welding of Unit 3 Passive Residual Heat Removal System 137 piping 1/29/2018 1/29/2018 2/8/2018 +1 Month(s) No sequencing. Delay due to refinement and the sequencing. No sequencing.	
Delay due to refinement: 134 Set Unit 3 Reactor Vessel 5/26/2017 10/11/2017 +5 Month(s) Delay due to refinement: 135 Set Unit 3 Steam Generator #2 9/22/2017 12/15/2017 +3 Month(s) Delay due to refinement: 136 Set Unit 3 Pressurizer Vessel 11/27/2017 1/29/2018 +2 Month(s) Complete welding of Unit 3 Passive Residual Heat Removal System 137 piping 1/29/2018 2/8/2018 +1 Month(s) No sequencing.	nent and schedule re-
refinement: sequencing. 134 Set Unit 3 Reactor Vessel 5/26/2017 10/11/2017 +5 Month(s) Delay due to refinement: sequencing. 135 Set Unit 3 Steam Generator #2 9/22/2017 12/15/2017 +3 Month(s) Delay due to refinement: sequencing. 1/29/2018 2/8/2018 +1 Month(s) No sequencing.	
134 Set Unit 3 Reactor Vessel 135 Set Unit 3 Steam Generator #2 136 Set Unit 3 Pressurizer Vessel 137 piping 5/26/2017 10/11/2017 10/	
Delay due to refinement a sequencing. Set Unit 3 Steam Generator #2 9/22/2017 12/15/2017 +3 Month(s) Delay due to refinement a sequencing. Complete welding of Unit 3 Passive Residual Heat Removal System 137 piping 1/29/2018 2/8/2018 +1 Month(s) No sequencing.	nent and schedule re-
135 Set Unit 3 Steam Generator #2 9/22/2017 12/15/2017 +3 Month(s) No sequencing. Delay due to refinement a refinement of sequencing. 136 Set Unit 3 Pressurizer Vessel 11/27/2017 1/29/2018 +2 Month(s) No sequencing. Complete welding of Unit 3 Passive Residual Heat Removal System 1/29/2018 2/8/2018 +1 Month(s) No sequencing.	
135 Set Unit 3 Steam Generator #2 9/22/2017 12/15/2017 +3 Month(s) No sequencing. Delay due to refinement a sequencing. 136 Set Unit 3 Pressurizer Vessel 11/27/2017 1/29/2018 +2 Month(s) No sequencing. Complete welding of Unit 3 Passive Residual Heat Removal System piping 1/29/2018 2/8/2018 +1 Month(s) No sequencing.	
Delay due to refinement a sequencing. 136 Set Unit 3 Pressurizer Vessel 11/27/2017 1/29/2018 +2 Month(s) No sequencing. Complete welding of Unit 3 Passive Residual Heat Removal System 137 piping 1/29/2018 2/8/2018 +1 Month(s) No sequencing.	nent and schedule re-
refinement of sequencing. Set Unit 3 Pressurizer Vessel 11/27/2017 1/29/2018 +2 Month(s) No sequencing. Delay due to refinement of sequencing. Complete welding of Unit 3 Passive Residual Heat Removal System 137 piping 1/29/2018 2/8/2018 +1 Month(s) No sequencing.	
136 Set Unit 3 Pressurizer Vessel 11/27/2017 1/29/2018 +2 Month(s) No sequencing. Complete welding of Unit 3 Passive Residual Heat Removal System 1/29/2018 2/8/2018 +1 Month(s) No sequencing.	nent and schedule re-
Complete welding of Unit 3 Passive Residual Heat Removal System 137 piping Delay due to refinement a sequencing. 1/29/2018 2/8/2018 +1 Month(s) No sequencing.	
Complete welding of Unit 3 Passive Residual Heat Removal System 137 piping 1/29/2018 2/8/2018 +1 Month(s) No sequencing.	
137 piping 1/29/2018 2/8/2018 +1 Month(s) No sequencing.	nent and schedule re-
I I I I I I I I I I I I I I I I I I I	due to schedule
	nent and schedule re-
138 Set Unit 3 polar crane 12/18/2017 3/28/2018 +3 Month(s) No sequencing.	

Legend = Completed = Completed this Quarter = Movement in Days Only

Appendix 1 VC Summer Units 2 and 3

			illis z aliu s					
Tracking ID	Order No. 2015-661 Description	Order No. 2015-661	16-1Q Targeted Milestone Completion Date	Actual Completion Date	Delta Months from Order No. 2015-661 Date	Outside +18/-24 Months Contingency?	Notes	
SERVICE OF	CAND STATE OF THE		CONTRACT TO STATE	No.	TO PERSON		The contractor requested to	
			1				reset the approved date to	
							align this milestone with the	
							correct activity in the	
139	Start Unit 3 Shield Building roof slab rebar placement	5/11/2018	6/30/2019		+13 Month(s)	No	construction schedule.	
140	Start Unit 3 Auxiliary Building electrical cable pulling	6/23/2017	4/12/2017			No	construction schedule.	
140	Start Offic 5 Auxiliary Building electrical cable pulling	0/23/2017	4/12/2017		-2 Month(s)	NO	Delay due to schedule	
							refinement and schedule re-	
141	Activate Unit 3 Auxiliary Building class 1E DC power	3/13/2018	6/25/2018		12 Manth(a)	No		
141	Activate Offit 3 Auxiliary Building class 12 DC power	3/13/2016	0/23/2018		+3 Month(s)	NO	sequencing. Delay due to schedule	
							refinement and schedule re-	
142	Complete Unit 3 Reactor Coolant System cold hydro	2/26/2019	5/16/2019		+3 Month(s)	No	sequencing.	
142	Complete onit 3 Reactor Coolant System cold hydro	2/20/2019	3/16/2019		+3 Month(s)	NO	Delay due to schedule	
			1				refinement and schedule re-	
143	Complete Unit 3 hot functional test	5/26/2019	8/12/2019		+3 Month(s)	No	1.00	
143	complete offit 3 not functional test	3/20/2019	6/12/2019		+5 MOHINS)	NO	sequencing. Delay due to schedule	
							refinement and schedule re-	
144	Complete Unit 3 nuclear fuel load	12/19/2019	1/30/2020		. 1 Manab/a	No		
145	Begin Unit 3 full power operation	5/20/2020	5/26/2020	TO A PROPERTY AND A SECOND	+1 Month(s)	No	sequencing.	
143	begin onic 3 fair power operation	3/20/2020	3/20/2020	A CONTRACTOR	U	NO	Delay due to schedule	
							refinement and schedule re-	
146	Unit 3 Substantial Completion	6/16/2020	7/22/2020		+1 Month(s)	No	sequencing.	
110	one o Substantial completion	0/10/2020	7/22/2020		+1 Month(s)	140	sequencing.	
			and the second					
	SUMMARY							
	Total Milesto	nes Completed	110	out of	146 =	75%		
	Milestone Movement - Order No. 2015-661 vs. 16-1Q:							
		vard Movement	31	out of	146 =	21%	I	
	b) Backw	ard Movement	2	out of	146 =	1%	ı	
	Milestones Within +12 to +		2	out of	146 =	1%		

egend = Completed = Completed this Quarter = Movement in Days Only

PUBLIC VERSION

APPENDIX 2

V. C. Summer Nuclear Station Units 2 & 3

Quarterly Report to the South Carolina Office of Regulatory Staff Submitted by South Carolina Electric & Gas Company Pursuant to Public Service Commission Order No. 2009-104(A)

Quarter Ending March 31, 2016

Appendix 2 is an updated and expanded version of the information contained in the capital cost schedule approved by the Commission in Order No. 2015-661.

Appendix 2 shows:

- 1. The actual expenditures on the project by plant cost category through the current period.
- 2. The changes in capital costs reflecting the Company's current forecast of expenditures on the project for each future period by plant cost category. In updating its cost projections the Company has used the current construction schedule for the project and the Commission-approved inflation indices as set forth in Appendix 4 to this report.
- 3. The cumulative CWIP for the project and the balance of CWIP that is not yet reflected in revised rates.
- 4. The current rate for calculating AFUDC computed as required under applicable FERC regulations.

The Cumulative Project Cash Flow target as approved in Order No. 2015-661 and as updated for escalation and other Commission-approved adjustments is found under the heading "Per Order 2015-661 Adjusted." The adjustments reflect:

- 1. Changes in inflation indices.
- 2. Budget Carry-Forward Adjustments used, where appropriate to track the effect of lower-than-expected cumulative costs on the future cumulative cash flow of the project.

Appendix 2 also shows the cumulative cash flow for the project based on actual expenditures to date and the current construction schedule and forecast of year-by-year costs going forward. This information is found under the heading "Actual through March 2016 plus Projected."

Appendix 2

PUBLIC VERSION

RESTATED and UPDATED CONSTRUCTION EXPENDITURES (Thousands of \$)

V.C. Summer Units 2 and 3 - Summary of SCE&G Capital Cost Components

Per Order 2015-661 Adjusted	<u>Total</u>	2007	2008	2009	<u>2010</u>	<u> 2011</u>	2012	2013	<u>2014</u>	<u>2015</u>	2016	2017	2018	2019	2020
Annual Project Cash Flow(per order) Capital Cost Rescheduling Contingency Budget Carry-Forward Adjustment	6,547,124	21,723	100,905	340,003	398,551	349,061	562,946	537,569	511,968 - -	939,674 - -	1,007,237	899,260 - -	541,365	262,510	74,354
Net	6,547,124	21,723	100,905	340,003	398,551	349,061	562,946	537,569	511,966	939,674	1,007,237	899,260	541,365	262,510	74,354
Adjusted for Change in Escalation	6,546,694	21 723	100,905	340,003	398,551	349,061	562,946	537,569	511,966	955,595	1,003,605	890,538	536,754	262,518	74,960
Cumulative Project Cash Flow(Target)		21,723	122,629	462,632	861,183	1,210,244	1,773,190	2,310,759	2,822,725	3,778,319	4,781,924	5,672,463	6,209,217	6,471;735	6,546,694

Actual through March 2016* plus Projected															
Plant Cost Categories	Total	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Projected 2018	2019	
Fixed with No Adjustment	1	v	3444				At Least 16	E0 15		- <u>Fois</u>	- KAIA	- COLL	4-rd 5010	TATE TO	2020
Firm with Fixed Adjustment A Firm with Fixed Adjustment &	äs			-	TB						-			lia	
Firm with Indexed Adjustment										L » 🛊	4	3 ₃	a ¹	± 200 A	grab of
Actual Craft Wages	1	j		1	il su	* 1	CONI	ールリヒ	NIP	\{L	³ 531	• 4	4	Prignal.	11 4
Non-Labor Costs Time & Materials	1	**	ái.					*	-,			i: dh		ı	
Owners Costs		ton Account by					gy.	ļ.	Be do a		4	\$F.	գր ենչ,	1 t	1 del*
Transmission Costs	333,812	-	26	724	927	11,964	51,677	56,593	46,439	45,046	57,326	49,160	13,930	•	
Total Base Project Costs(2007\$)	5,547,245	21,723	97,386	319,073	374,610	314,977	488,461	448,947	418,639	559,016	890,538	764,211	517,184	260,099	72,181
Total Project Escalation	1,348,337	-	3,519	20,930	23,741	34,084	74,485	88,622	93,326	97,362	273,501	264,673	205,500	117,207	51,387
Total Revised Project Cash Flow	6,895,582	21,723	100,905	340,003	398,551	349,061	562,948	537,569	511,965	656,378	1,164,039	1,028,684	722,684	377,306	123,568
Cumulative Project Cash Flow(Revised)		21,723+	122,629	462,632	861,183	1,210,244	1,773,190	2,310,759	2,822,724	3,479,101	4,643,140	5,672,024	6,394,708	6,772,014	6,895,582
AFUDC(Capitalized Interest)	297,301	645	3,497	10,564	17,150	14,218	18,941	27,722	26,131	22,202	39,323	55,164	37,363	16,840	7,542
Gross Construction	7,192,883	22,368	104,403	350,567	415,701	363,278	581,886	565,291	538,096	678,580	1,203,362	1,084,047	760,047	394,146	131,110
Construction Work in Progress		22,368	126,771	477,338	893,039	1,256,317	1,838,203	2,403,495	2,941,590	3,620,170	4,823,533	5,907,580	6,667,627	7,061,773	7,192,883
CWIP Currently in Rates					3,214,067										

М	larch 31, 2016 Actu	al Incremental CWIP Not Currently In Rates	 54	8,569

de index escalation rates for 2015 are estimated. Escalation is subject to restatement when actual indices for 2015 are final,

Notes; 2016-2020 AFUDC rate applied

5.82%

The AFUDC rate applied is the current forecasted SCEAG rate, AFUDC rates can vary with changes in market interest rates, SCEAG's embedded cost of capital, capitalization ratios, construction work in process, and SCEAG's short-term debt outstanding.

APPENDIX 3

V. C. Summer Nuclear Station Units 2 & 3

Quarterly Report to the South Carolina Office of Regulatory Staff Submitted by South Carolina Electric & Gas Company Pursuant to Public Service Commission Order No. 2009-104(A)

Quarter Ending March 31, 2016

For comparison purposes, Appendix 3 provides the schedule of capital costs for the project which was approved by the Commission in Order No. 2015-661 as the Approved Capital Cost of the Units, pursuant to S.C. Code Ann. § 58-33-270(B)(2). Appendix 3 also reflects the forecast of AFUDC expense based on these adjusted schedules and the AFUDC rates that were current at the time of Order No. 2015-661. Appendix 3 is intended to provide a fixed point of reference for future revisions and updating. While the schedule of costs contained on Appendix 3 is subject to revision for escalation, changes in AFUDC rates and amounts, capital cost scheduling contingencies and other contingency adjustments as authorized in Order No. 2009-104(A), no such adjustments have been made to the schedules presented here.

Appendix 3

PUBLIC VERSION

RESTATED and UPDATED CONSTRUCTION EXPENDITURES (Thousands of \$)

V.C. Summer Units 2 and 3 - Summary of SCE&G Capital Cost Components

Per	Order	201	5-661

	ı					ual						Proje	riad		
Plant Cost Categories	Total	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
ixed with No Adjustment					W			. 7000							Table 1. 4 1. A
rm with Fixed Adjustment A						\$I		o. st.	#	*Via	44,	ll-ir	4	is ge	· · · · · · · · · · · · · · · · · · ·
m with Fixed Adjustment B m with Indexed Adjustment	·		i,	KS					¥ — •. • ••• •	- h					
tual Craft Wages	[CON	IFIDI	$-$, $N \top$	ΔΙ.	24 All	3h #		ŧ	ande a flag
on-Labor Costs	ıř.			*		en.		1 1 12		b of	a Ga	ı Ü	ge t	Ī	pa ^{lle} i in
me & Materials	7	p> 1	\$	34		4									
yners Costs ansmission Costs	329,512		26	724	927	11,964	51,677	56,593	47,207	64,576	64,794	30,314	710	<u> </u>	
mismission Costs	329,312	•	20	724	321	11,304	51,077	50,555	41,201	04,310	04,734	50,514	,10	_	
tal Base Project Costs(2007 \$)	5,246,638	21,723	97,386	319,073	374,810	314,977	488,461	448,947	422,076	742,980	759,311	658,948	389,817	169,840	38,2
ota) Project Escalation	1,300,486	•	3,519	20,930	23,741	34,084	74,485	88,622	89,890	196,694	247,926	240,312	151,548	92,670	36,0
otal Revised Project Cash Flow	6,547,124	21,723	100,905	340,003	398,551	349,061	562,946	537,569	511,966	939,674	1,007,237	899,260	541,365	262,510	74,3
umulative Project Cash Flow(Revised)		21,723	122,629	462,632	861,183	1,210,244	1,773,190	2,310,759	2,822,725	3,762,398	4,769,635	5,668,895	8,210,260	6,472,770	6,547,1
UDC(Capitalized Interest)	279,790	645	3,497	10,564	17,150	14,218	18,941	27,722	26,131	30,502	44,428	39,884	30,984	11,529	3,
onstruction Work in Progress		22,368	126,771	477,338	893,039	1,256,317	1,838,203	2,403,495	2,941,591	3,911,767	4,963,430	5,902,573	6,474,923	6,748,962	6,826,9

APPENDIX 4

V. C. Summer Nuclear Station Units 2 & 3

Quarterly Report to the South Carolina Office of Regulatory Staff Submitted by South Carolina Electric & Gas Company Pursuant to Public Service Commission Order No. 2009-104(A)

Quarter Ending March 31, 2016

Appendix 4 shows the changes in the inflation indices approved in Order No. 2009-104(A). Included is a ten year history of the Handy-Whitman All Steam Index, South Atlantic Region; the Handy-Whitman All Steam and Nuclear Index, South Atlantic Region; the Handy-Whitman All Transmission Plant Index, South Atlantic Region; and the Chained GDP Index. The change in the relevant indices from the Combined Application is also provided.

PUBLIC VERSION

Appendix 4, Chart A

Inflation Indices, Chart A

HW All Steam Generation Plant Index, July 2015

<u>Year</u>	<u>Index</u>	Yr/Yr change	Three Year Average	Five Year Average	Ten Year Average
2015	631	3.27%	2.61%	2.90%	4.11%
2014	611	2.52%	2.16%	3.21%	4.35%
2013	596	2.05%	2.91%	2.18%	4,77%
2012	584	1:92%	3.82%	3.60%	4.67%
2011	573	4.75%	2.31%	4.75%	
2010	547	4.79%	3.78%	5.31%	
2009	522	-2.61%	4.74%	5.50%	
2008	536	9.16%	8.13%	7.35%	
2007	491	7.68%	6.99%	5.74%	
2006	456	7.55%	6.64%	4.75%	
2005	424	5.74%	4.49%		
2004	401	6.65%	3.50%		
2003	376	1.08%			
2002	372	2.76%			
2001	362				

<u>HW</u>	All	Steam	Index:

One year Five Year

BLRA Filing Jul-07	Order 2010-12 <u>Jan-09</u>	Order 2011-345 <u>Jul-10</u>	Order 2012-884 <u>Jan-12</u>	Order 2015-661 <u>Jul-14</u>	·Update <u>Jul-15</u>
7.68%	4.83%	4.79%	4.51%	2.52%	3.27%
5.74%	7.19%	5.31%	3.91%	3.21%	2.90%

Appendix 4, Chart B

Inflation Indices, Chart B

HW All Steam and Nuclear Generation Plant Index, July 2015

<u>Year</u>	<u>Index</u>	Yr/Yr change	<u>Three Year Average</u>	Five Year Average	Ten Year Average
2015	632	3.44%	2.67%	2.97%	4.15%
2014	611	2.52%	2.22%	3.21%	4.38%
2013	596	2.05%	2.97%	2.22%	4.79%
2012	584	2,10%	3.82%	3.64%	4.70%
2011	572	4,76%	2.31%	4.76%	
2010	546	4.60%	3.78%	5.32%	
2009	522	-2.43%	4.82%	5.55%	
2008	535	9.18%	8.15%	7.37%	
2007	490	7.69%	7.00%	5.75%	
2006	455	7.57%	6.66%	4.77%	
2005	423	5.75%	4.50%		
2004	400	6.67%	3.50%		
2003	375	1.08%			
2002	371	2.77%			
2001	361				

BLRA

	Filing	Order 2010-12	Order 2011-345	Order 2012-884	Order 2015-661	Update
	<u>Jul-07</u>	<u>Jan-09</u>	<u>Jul-10</u>	<u>Jan-12</u>	<u>ปน -14</u>	<u>Jul-15</u>
HW All Steam/Nuclear Index: One year Five Year	7.69% 5.75%	! 4.84% 7:20%	4.60% 5.32%	4.52% 3.87%	2.52% 3,21%	3.44% 2.97%

PUBLIC VERSION

Appendix 4, Chart C

Inflation Indices, Chart C

HW All Transmission Plant Index, July 2015

<u>Year</u>	<u>Index</u>	Yr/Yr change	Three Year Average	Five Year Average	<u>Ten Year Average</u>
2015	614	1.66%	1.68%	1.94%	3.59%
2014	604	1,68%	1.07%	2.63%	4.05%
2013	594	1.71%	2.13%	1.09%	4.91%
2012	584	-0.17%	3.25%	2.56%	4.71%
2011	585	4.84%	1.30%	4.36%	
2010	558 ⁻	5.08%	2.71%	5.23%	
2009	531	-6.02%	3.96%	5.48%	
2008	565	9.07%	9.02%	8:73%	
2007	518	8.82%	8.11%	6.86%	
2006	476	9.17%	8.58%	5.25%	
2005	436	6.34%	5.43%		
2004	410	10.22%	3.59%		
2003	372	-0.27%			
2002	373	0.81%		,	
2001	370				

HW All	Transmission	Plant Index
One ye	ar	
Five Ye	ear	

Filing	Order 2010-12	Order 2011-345	Order 2012-884	Order 2015-661	Update
Jul-07	<u>Jan-09</u>	<u>Jul-10</u>	<u>Jan-12</u>	<u>Jul-14</u>	<u>Jul÷15</u>
8.82%	7.41%	5.08%	2.48%	1:68%	1.66%
6.86%	8.60%	5.23%	3.00%	2.63%	1.94%

PUBLIC VERSION

Appendix 4

Inflation Indices, Chart D

GDP Chained Price Index, 2015

SERIESTYPE	UNIT	SHORT LABEL					=	IĐ	2009	2010	2011	2012	2013 -	_ 2014	2015
Chained Price IndexGross Dome U.S. Macro - 10 Year Baseline Annual Percent change 3-Year Annual Percent change 5-Year Annual Percent change		t Chained price index-gr	oss domestic product ,	Source: BEA , Unit	its: Index- 2	009=100.0		45158933	100.00	100.75 0.75%	102.79 2.02%	104.70 1.86% 1.54%	106.48 1. 70% 1.86%	108.33 1. 74% 1.77% 1161%	109.4 0.99% 1.48% 1.66%
Consumer Price Index, All-Urban U.S. Macro - 10 Year Baseline Percent change 3-Year Annual Percent change 5-Year Annual Percent change	Index	Consumer price index,	all-urban , Source: BLS	S , Units: - 1982-8	84 =1. 00			45158182	2.15	2.17 0.93%	2.23 2.76%	2.29 2.69% 2.13%	2.32 1.31% 2.26%	2.36 1.72% 1.91% 1.88%	2.36 0.00% 1.01% 1.70%
Producer Price IndexFinished G U.S. Macro - 10 Year Baseline Percent change 3-Year Annual Percent change 5-Year Annual Percent change		Producer price index-fit	nished goods , Source:	BLS , Units: index	x- 1982⊐1.0)		451 5 9751	1.73	1.79 3.47%	1.89 5.59%	1.93 2.12% 3.72%	1.96 1.55% 3,09%	2.00 2.04% 1.90% 2.95%	1.94 -3.00% 0.20% 1.66%

	BLRA Filing Jul-07	Order 2010-12 <u>Jan-09</u>	Order 2011-345 <u>Jul-10</u>	Order 2012-884 <u>Jan-12</u>	Order 2015-661 <u>Jul-14</u>	Update Jul-15
GDP Chained Price Index One year Five Year	2.66% 2.81%	2.24% 2.86%	0.43% 1.97%	2.11% 1.69%	1.55% 1.55%	0.99% 1.66%

APPENDIX 5

V. C. Summer Nuclear Station Units 2 & 3

Quarterly Report to the South Carolina Office of Regulatory Staff Submitted by South Carolina Electric & Gas Company Pursuant to Public Service Commission Order No. 2009-104(A)

Quarter Ending Dec March 31, 2016

Appendix 5 indicates those LARs that have been submitted by SCE&G to the NRC for review. Included is the title of each LAR, a brief description of the change(s) associated with the LAR, the date the LAR was submitted to the NRC, and the status of the requests.

Topic	Description of Change	Submittal Date	t Status
LAR 12-01 - Additional Electrical Penetration Assemblies	Provide additional penetrations of the Containment Vessel to allow sufficient space for electrical and instrument cables.	8/29/2012	Approved on 7/1/2013
LAR-12-02 – Tier 1 Table 3.3-1 Discrepancies – PAR Utilized	Conform the current ITAAC standards used to verify the shield building wall thickness to align with those approved in DCD Rev. 19.	9/26/2012	Approved on 5/30/2013
LAR 13-01 - Basemat Shear Reinforcement Design Spacing Requirements - PAR Utilized	Clarify the provisions for maximum spacing of the shear reinforcement in the basemat below the auxiliary building to be consistent with requirements shown in existing FSAR figures.	1/15/2013	. Approved on 2/26/2013
LAR 13-02 - Basemat Shear Reinforcement Design Details - PAR Utilized	Revises the requirements for development of basemat shear reinforcement in the licensing basis from ACI 349 Appendix B to ACI 318-11, Section 12.6. The use of ACI 318 criteria for headed reinforcement results in longer shear ties and thicker concrete in areas below the elevator pits and a sump in the nuclear island:basemat.	. 1/18/2013	Approved on 3/1/2013
LAR 13-03 - Turbine Building Eccentric and Concentric Bracing	Revises the turbine building main area to use a mixed bracing system using eccentrically and concentrically braced frames as a means of preventing the turbine building from collapsing onto the Nuclear Island (NI) during a seismic event. The structural design code is also changed to a code that includes adequate provisions for the new bracing system.	2/7/2013	Approved on 7/1/2013
LAR 13-04 - Reconciliation of Tier 1 Valve Differences	Reconciles valve related information contained in Tier 1 material to be consistent with corresponding Tier 2 material currently incorporated in the UFSAR.	2/7/2013	Approved on 9/3/2015

Topic	Description of Change	Submittal Date	Status
LAR 13-05 - Structural Modules Shear Stud Size and Spacing	Revises Note 2 of UFSAR Figure 3.8.3-8, Sheet 1, which presents typical structural wall module details. This information needs to be changed to be consistent with the design basis calculations.	2/14/2013	Approved on 5/23/2013
LAR 13-06 - Primary Sampling System Changes	Alters the design of the Primary Sampling System (PSS) by replacing a check valve with a solenoid-operated gate valve, modifying the PSS inside-containment header and adding a PSS containment penetration.	2/7/2013	Approved on 8/22/2013
LAR 13-07 - Changes to the Chemical and Volume Control System (CVS)	Alters the design of the Chemical and Volume Control System (CVS) by adding/changing valves, separating the zinc and hydrogen injection paths and relocating the zinc injection point.	3/13/2013	Approved on 2/24/2014
LAR 13-08 - Module Obstructions and Details	Withdrawn after review with NRC-see Letter NND-13-202. Superceded by LAR 13-20.	2/28/2013	Withdrawn
LAR 13-09 - Annex/Radwaste Building Layout Changes	Updates column line numbers on Annex Building Figures and changes the configuration of the Radwaste building by adding three bunkers for storage and merging two rooms.	2/27/2014	Under NRC Review
LAR 13-10 - Human Factors Engineering Integrated System Validation Plan	Revises referenced document APP-OCS-GEH-320 from Revision D to Revision 2.	3/13/2013	Approved on 7/31/2014
LAR 13-11 - NI Wall-Reinforcement Criteria -PAR Utilized	Revises structural code criteria for anchoring reinforcement bar within the NI walls (adopts ACI-318 for this purpose).	3/26/2013	Approved on 6/6/2013

Topic	Description of Change	. Submittal Date	Statuș
LAR 13-12 - Fire Area Boundary Changes	Revises various information to support fire area boundaries (HVAC information, stairwell changes, and other layout changes).	7/17/2013	Approved on 9/9/2014
LAR 13-13 - Turbine Building Layout' Changes	Revises the door location, clarifies column line designations, changes floor to ceiling heights and increases elevations and wall thickness in certain areas.	7/30/2013	Approved on 5/12/2014
LAR 13-14 - Turbine Building Battery Room and Electrical Changes	Revises the Non-Class 1E dc and Uninterruptible Power Supply System (EDS) and Class 1E dc and Uninterruptible Power Supply System (IDS) by: (1) Increasing EDS total equipment capacity, component ratings, and protective device sizing to support increased load demand, (2) Relocating equipment and moving Turbine Building (TB) first bay EDS Battery Room and Charger Room. The floor elevation increases from elevation 148'-0" to elevation 148'-10" to accommodate associated equipment cabling with this activity, and (3) Removing the Class 1E IDS Battery Back-up tie to the Non-Class 1E EDS Battery.	10/2/2013	Approved on 10/24/2014
LAR 13-15 - Operator Break Room Configuration	No description provided. This is no longer a LAR.	Changed to	a Non-LAR Departure
LAR 13-16 - Revision to Human Factors Englneering Design Verification Plan (GEH-120)	Revises referenced document APP-OCS-GEH-120 from Revision B to Revision 1.	9/25/2013	Approved on 7/3·1/2014

Topic!	Description of Change	Submittal Date	Status
LAR 13-17 - Revision to Human Factors Engineering Task Support Verification (GEH-220)	Revises referenced document APP-OCS-GEH-220 from Revision B to Revision 1.	9/25/2013	Approved on 7/31/2014
LAR 13-18 - Revision to Human Factors Engineering Issue Resolution Plan	Revises APP-OCS-GEH-420 to make a number of changes in order to refine the process for capturing and resolving Human Engineering Discrepancies (HEDs) from that process document as described in Revision B.	10/3/2013	Approved on 7/31/2014
LAR 13-19 - Revision to Human Factors Engineering Plan	Revises APP-OCS-GEH-520 to make a number of changes in order to confirm aspects of the HSI and OCS design features that could not be evaluated in other Human Factors Engineering (HFE) V&V activities.	10/3/2013	Approved on 7/31/2014
LAR 13-20 - Modules / Stud Channel Obstructions Revision	Revises requirements for design spacing of shear studs and wall module trusses and the design of structural elements of the trusses such as angles and channels. These revisions are to address interferences and obstructions.	7/17/2013	Approved on 11/19/2013
LAR 13-21 - CA03 Module Design Differences	Corrects inconsistencies between Tier 2* and Tier 2 information.	2/2/2014	Approved on 4/17/2015
LAR 13-22 - Annex Building Structure and Layout Changes	The proposed changes would revise the Combined Licenses (COLs) by (a) installing an additional nonsafety-related battery, (b) revising the annex building internal configuration by converting a shift turnover room to a battery room, adding an additional battery equipment room, and moving a fire area wall, (c) increasing the height of a room, and (d) increasing certain floor thicknesses. The proposed changes include reconfiguring existing rooms and related room, wall, and access path changes.	12/4/2014	Approved on 10/23/2015

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Торіс	Description of Change	Submittal Date	Status,
LAR 13-23 - Reinforced Concrete (RC) to Steel Plate Composite Construction (SC) Connections	The proposed amendment would revise Tier 2* and associated Tier 2 material related to the design details of connections in several locations between the steel plate composite construction (SC) used for the shield building and the standard reinforced concrete (RC) walls, floors, and roofs of the auxiliary building and lower walls of the shield building.	7/11/2014	Approved on 12/16/2014
LAR 13-25 - Tier 1 Editorial and Consistency Changes	Revises information to correct consistency and editorial issues. This submittal does not contain any technical changes.	7/2/2013	Approved on 7/31/2014
LAR 13-26 - EP Rule Changes	Revision to the Emergency Plan in order to comply with regulatory changes enacted by the Nuclear Regulatory Commission (NRC) in the Final Rule. These changes include the addition of text that 1) clarifies the distance of the Emergency Operations Facility (EOF) from the site, 2) updates the content of exercise scenarios to be performed at least once each exercise cycle, and 3) requires the Evacuation Time Estimate (ETE) to be updated annually between decennial censuses.	12/17/2013	Approved on 6/20/201'4
LAR 13-27 - Control Rod Drive Mechanism Latching Relays	The proposed change would revise Combined License (COL) numbers NPF-93 and NPF-94 for Virgil C. Summer Nuclear Station, Units 2 & 3, respectively, to specify the use of Control Rod Drive Mechanism (CRDM) latching control relays (referred to as control relays herein) in lieu of field breakers to open the CRDM motor generator (MG) set generator field on a diverse actuation system (DAS) signal.	10/30/2014	Approved on 6/10/2015

Topic	Description of Change	Submittal Date	Status
LAR 13-28 - Piping Line Number Additions, Deletions, and Functional Capability Re-designation	The proposed changes revise the Combined License (COL) in regard to changes to the Automatic Depressurization System (ADS), the Passive Containment Cooling System (PCS), the Passive Core Cooling System (PXS), the Normal Residual Heat Removal System (RNS), the Containment Air Filtration System (VFS), Spent Fuel Pool Cooling System (SFS) and the Sanitary Discharge System (SDS) piping line numbers to reflect the asdesigned configuration resulting from changes in piping layout or rerouting. The changes consist of adding or deleting piping line numbers of existing piping lines, or updating the functional capability classification of existing process flow lines for the tables.	12/18/2014	Approved on 1/20/16
LAR 13-29 - Class 1E DC and Uniterruptible Power Supply System Removal of Spare Battery Termination Boxes	The proposed changes revise COLs concerning the Class 1E dc and Uninterruptible Power Supply System (IDS). The proposed changes replace four Spare Termination Boxes (IDSS-DF-2, IDSS-DF-3, IDSS-DF-4, and IDSS-DF-5) with a single Spare Battery Termination Box (IDSS-DF-3), and make minor raceway and cable routing changes.	12/19/2014	Under NRC Review
LAR 13-31 - Relocation of Air Cooled Chiller Pump 3, VWS-MP-03	The proposed changes modify the design of the low capacity Central Chilled Water Subsystem (VWS) by relocating Air Cooled Chiller Pump 3 (VWS-MP-03) and its associated equipment, including a new chemical feed tank, from the Auxiliary Building to the Annex Building.	10/21/2015	Under NRC Review
LAR 13-32 - WLS Changes	Clarifies the description of the WLS, including changing depiction of valves to be consistent with Tier 1 figure conventions, ensuring consistency between Tier 1 and Tier 2 descriptions, and clarifying the safety classification of the drain hubs.	8/30/2013	Approved on 1/8/2014

Topic	Description of Change	Submittali Date	Status
LAR 13-33 - Passive Core Cooling System (PXS) Condensate Return	The proposed amendment would revise the plant-specific Tier 1 and associated Tier 2 material to increase the efficiency of the return of condensate utilized by the passive core cooling system (PXS) to the in-containment refueling water storage tank (IRWST) to support the capability for long term cooling.	7/8/2014	¹ Under NRC Review
LAR 13-34 - Clarification of Tier 2* Material in HFE Documents	The proposed changes reclassify portions of the five Tier 2* Human Factors (HF) Verification & Validation (V&V) planning documents listed in Updated Final Safety Analysis Report (UFSAR) Table 1.6-1 and Chapter 18, Section 18.11.2.	3/19/2014	Approved on 10/8/2014
LAR 13-35 - Update of Common Qualified (Common.Q) Platform Software Program Manual and Topical Report	The newer revisions of WCAP-16096 and WCAP-16097 are being adopted for the AP1000 Protection and Safety Monitoring System (PMS) by adding them to the AP1000 licensing basis. This license amendment request (LAR) requests approval of the new and revised Tier 2 and Tier 2* UFSAR text.	3/4/2016	Under NRC Review
LAR 13-36 - CIM / DAS Diversity Clarification	The requested amendment proposed to depart from approved AP1000 Design Control Document (DCD) Tier 2* information as incorporated into the Updated Final Safety Analysis Report (UFSAR) by clarifying the position on design diversity, specifically human diversity, as related to the Component Interface Module (CIM) and Diverse Actuation System (DAS) design.	9711/2014	Approved on 7/17/2015

Topic	Description of Change	Submittal Date	Status
LAR 13-37 - VCSNS Units 2 & 3 Tech Spec Upgrade	Revises Technical Specifications to closer align with the guidance of the Technical Specifications Task Force (TSTF) Writer's Guide for Plant-Specific Improved Technical Specifications, TSTF-GG-05-01, Revision 1, and with NUREG-1431, Standard Technical Specifications - Westinghouse Plants as updated by NRC approved generic changes.	12/4/2013	Approved on 11/12/2014
LAR 13-38 - ACI/Code Compliance with Critical Sections Higher Elevations	Withdrawn after review with NRC-see Letter NND-13-0745.	11/7/2013	Withdrawn
LAR 13-39 - EPZ Expansion.LAR	This amendment proposes a change to the VCSNS Units 2&3 Radiation Emergency Plan (Plan). VCSNS proposes the following changes to the Units 2&3 Plan: expansion of the Emergency Planning Zone (EPZ) boundary, and revisions to the Evacuation Time Estimates (ETE) analysis and the Alert and Notification System (ANS) design reports to encompass the expanded EPZ boundary.	5/18/2015	Approved on 2/5/16
LAR 13-41 - Coating Thermal Conductivity	Revises Design Control Document (DCD) Tier 2 information as incorporated into the Updated Final Safety Analysis Report (UFSAR) to allow use of a new methodology to determine the effective thermal conductivity resulting from oxidation of the inorganic zinc (IOZ) used in the containment vessel coating system.	11/26/2013	Approved on 10/9/2015
LAR 13-42 - Tier 1 Editorial and Consistency Changes #2	Allows various changes to correct editorial errors in Tier 1 and promote consistency with the Updated Final Safety Analysis Report (Tier 2 information).	5/20/2014	Approved on 3/10/2015

Topic	Description of Change	Submittal Date	Status.
LAR 14-01 - Auxiliary Building Roof and Floor Details	Departs from VCSNS Units 2 and 3 plant-specific Design Control Document (DCD) Tier 2* material contained within the Updated Final Safety Analysis Report (UFSAR) to identify design details of the floors of the auxiliary building that may vary due to design and loading conditions, in accordance with code requirements.	4/3/2014	Approved on 7/18/2014
LAR 14-02 - Wall 11 Design Related Changes	This amendment request proposes changes to the design of auxiliary building Wall 11 and proposes other changes to the licensing basis for use of seismic Category II structures. This submittal requests approval of the license amendment necessary to implement these changes.	12/17/2015	Under NRC Review
LAR 14-03 - Tier 2* Editorial and Clarification Changes	Departs from VCSNS Units 2 and 3 plant-specific Design Control Document (DCD) Tier 2* material contained within the Updated Final Safety Analysis Report (UFSAR) by making editorial and consistency corrections.	6/12/2014	Approved 11/20/2015
LAR 14-05 - Containment Internal Structural Module Design Details	The requested amendment proposes to depart from Tier 2* information in the Updated Final Safety Analysis Report (UFSAR), plant-specific Tier I and corresponding COL Appendix C information, and involved UFSAR Tier 2 information to address changes in the UFSAR and design documents related to containment internal structural wall module design details.	; 7/17/2014	Approved on 3/12/2015

Topic	Description of Change	Submittal Date	Status
LAR 14-06 - Enclosures for Class 1E Electrical Penetrations in Middle Annulus	Departs from VCSNS Units 2 and 3 plant-specific Design Control Document (DCD) Tier 2* material contained within the Updated Final Safety Analysis Report (UFSAR) by eliminating the Division A fire zone enclosure and adding three new fire zones for Divisions B, C, and D Class 1 E electrical penetration rooms.	6/20/2014	Approved on 12/30/2014
LAR 14-07 - CA04 Structural Module ITAAC Dimensions Change	The proposed amendment would allow changes to adjust the concrete wall thickness tolerances of four Nuclear Island walls found in Tier 1.	9/25/2014	Approved on 8/24/2015
LAR 14-08 - Integrated Test Program (ITP)	The requested amendment requires changes to the Updated Final Safety Analysis Report (UFSAR) in the form of departures from the incorporated plant-specific Design Control Document (DCD) Tier 2 information, and involves changes to related plant-specific Tier 1 information with corresponding changes to the associated COL information. Many of the changes in this amendment request are done in order to conform to the Tier 1 Section 3.4 exemption request described in Enclosure 2. In that change, construction and installation testing is removed from the ITP and replaced with component testing.	10/23/2014	Approved on 9/9/2015
LAR 14-09 - Turbine Building Switchgear Room and Office Layout Changes	The requested amendment would depart from VCSNS Units 2 and 3 plant-specific Design Control Document (DCD) Tier 2* material contained within the Updated Final Safety Analysis Report (UFSAR) by relocating fire area rated fire barriers due to changes to the layout of the switchgear rooms and office area in the turbine building. The requested amendment would also depart from plant-specific DCD Tier 2 material that involves the proposed Tier 2* departures.	9/18/2014	Approved on 12/18/2015

* Topic	Description of Change	Submittal Date	Status
LAR 14-10 - Addition of Instruments to Design Reliability Assurance Program (D-RAP)	This license amendment request proposes to modify the existing feedwater controller logic to allow the controller program to respond as required to various plant transients while minimizing the potential for false actuation. The current configuration of the feedwater control system allows the startup feedwater (SFW) pumps to start upon initiation of a reactor trip. This proposed change will align the feedwater controller logic with the guidance in the Advanced Light Water Reactor Utility Requirements Document (ALWR URD).	7/6/2015	Under NRC Review
ĿAR ·14-13 - :Proposed Emergency Action Levels	This LAR proposes that the license conditions be modified to allow SCE&G to submit plant-specific EALs developed using criteria from NEI 07-01, Rev 0 and NEI 99-01. The proposed changes, including the modification of VCSNS/Units 2&3 License Conditions 2.D(12)(c) and submittal of the new plant-specific EALs for both units, do affect the VCSNS Units 2&3 Combined Licenses, but do not alter requirements of the Emergency Plan or Technical Specifications.	10/9/2015 !	Under NRC Review
LAR 14-1'5 - Compressed and Instrument Air Supply Modification	The proposed change would revise the Combined Licenses (COLs) in regard to removing a supply line from the Compressed and Instrument Air System (CAS) to the generator breaker package and involves changes to related plant-specific Tier 1 information, with corresponding changes to associated COL Appendix C information.	10/30/2014	Under NRC Review
LAR 14-16 - Condensate Water Storage Tank Volume	No description provided. This is no longer a LAR.	Changed to a Non-LAR Departure	

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Topic	Description of Change	Submittal Date	Status
LAR 14-17 - Core Reference Report Incorporation	This amendment is requested in order to incorporate WCAP-17524-P-A, Revision 1, AP1000 Core Reference Report.	3/14/2016	Under NRC Review
LAR 14-18 - Containment Hydrogen İgniter Changes	The proposed departures consist of changes to plant-specific Tier 1 (and COL Appendix C) tables and UFSAR tables, text, and figures related to the addition of two hydrogen igniters above the In-Containment Refueling Water Storage Tank (IRWST) roof vents to improve hydrogen burn capabilities, incorporating consistency changes to a plant-specific Tier 1 table to clarify the minimum surface temperature of the hydrogen igniters and igniter location, removal of hydrogen igniters from the Protection and Safety Monitoring System (PMS) from a plant-specific Tier 1 table, and clarification of hydrogen igniter controls in a Tier 1 table.	5/6/2015 ⁻	Under NRC Review
LAR 14-19 - HFE OSA Task Update and Removal of WCAP-15847	Tier 2* document WCAP-15847 identifies documents that were used to support the AP1000 Design Certification. These documents have either been superseded or discontinued. Therefore, an amendment is being proposed to implement the necessary Tier 2* changes to delete WCAP-15847 from the UFSAR. In addition to this change, a Human Factors Engineering (HFE) Operational Sequence Analysis (OSA) task related to the Automatic Depressurization System (ADS) needs to be clarified.	1/27/2015	Approved on 6/2/2015

'Topic	Description of Change	Submittal Date	Status
LAR 15-01 - HFE V&V Plan Updates to Support ISV	The proposed changes will resolve inconsistencies and Implement changes identified during the review of Human Factors (HF) Verification and Validation (V&V) plans. These changes involve revising Tier 2* information contained within the Human Factors Engineering (HFE) Design Verification, Task Support Verification and Integrated System Validation (ISV) plans.	2/10/2015	Approved on 9/23/2015
LAR 15-03 - Main Control Room Emergency Habitability System (VES) Design Changes	The proposed changes revise the COLs concerning the design details of the Main Control Room Emergency Habitability System (VES). These proposed changes would revise ASME safety classification and transition location, equipment orientation and removal, and identification of the number of emergency air storage tanks.	6/30/2015	Under NRC Review
LAR 15-04 - Diverse Actuation System (DAS) Cabinet Changes	The proposed changes revise the licensing basis of the COLs to modify the design of the Diverse Actuation System (DAS) to be consistent with the DAS fire-induced spurious actuation (smart fire) and single point fallure criteria. The DAS is proposed to be revised by reconfiguring the signal processing in the two processor cabinets currently located in the Annex Building and relocating the cabinets to the Auxiliary Building. The proposed changes also eliminate the instrument cabinet located in the Auxiliary Building.	11/4/2015	Under NRC Review
LAR 15-07 - Reclassification of Tier 2* Information on Fire Area Figures	The requested amendment and exemption identify portions of the licensing basis that would more appropriately be classified as Tier 2, specifically the Tier 2* information on Fire Area Figures 9A-1, 9A-2, 9A-3, 9A-4, 9A-5, and 9A-201 in the VCSNS 2 and 3 Updated Final Safety Analysis Report.	5/4/2015	Approved on 2/1/16

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Торіс	Description of Change	Submittal Date	Štatūs
LAR 15-08 - Supplemental Requirements for Mechanical Coupler Weld Acceptability	The proposed change is that, using the AISC N690-1994 SLC of 1.6, rebar sizes #4, #5, and #6 C2/C3J couplers demonstrate the required weld capacity through analysis. For rebar sizes #7 through #11 C2/C3J couplers, this activity proposes testing as permitted by AISC N690-1994 Section Q1.22.2 to demonstrate the weld capacity for 125% of the specified yield strength loading of the rebar by performing a series of a minimum of six static and three cyclic tests on representative samples of each of the five sizes of the coupler-rebar- weld system.	8/24/2015	Approved on 11/12/2015
LAR 15-09 - Use of AWS D1.1-2000 Criteria for Structural Welds	The requested amendment proposes to depart from Tier 2* and associated Tier 2 information in the Updated Final Safety Analysis Report (UFSAR) (which includes the plant-specific DCD Tier 2 information) to revise the application of American Institute for Steel Construction (AISC) N690-1994, Specification for the Design, Fabrication and Erection of Steel Safety-Related Structures for Nuclear Facilities, to allow use of American Welding Society (AWS) DE-1-2000, Structural Welding Code-Steel, in lieu of the AWS D1.1-1992 edition identified in AISC N690-1994.	5/26/2015	Approved on 9/1/2015
LAR 15-15 - Radiologically Controlled Area Ventilation System (VAS) Design Changes	The requested amendment proposes changes to the Radiologically Controlled Area Ventilation System (VAS) configuration and equipment list by relocating one radiation monitor and adding one radiation monitor.	12/17/2015	Under NRC Review

Topie	Description of Change	Submittal: Date	Status
LAR 15-17 - Addition of New Turbine Building Sump Pumps to ITAAC	The proposed amendment would depart from plant-specific Tier: I information by adding two turbine building sump pumps to accommodate the increased flow that will be experienced during condensate polishing system rinsing operations. The proposed change also indicates that there is more than one main turbine building sump. Because flow into the turbine building sumps may be radiologically contaminated, the turbine building sump pumps will cease operation if a high radiation signal is present.	9/30/2015	Under NRC Review
LAR 15-18 - Revision to VCSNS Units 2 and 3 Plant-Specific Emergency Planning ITAAC	Changes to the plant-specific emergency planning ITAAC are proposed to remove the copies of DCD Table 7.5-1, "Post-Accident Monitoring System," and FSAR Table 7.5-201, "Post-Accident Monitoring System," and to replace the references to DCD Table 7.5-1 and FSAR Table 7.5-201 with UFSAR Table 7.5-1 in Table C.3.8-1 for ITAAC Numbers C.3.8.01.01.01, C.3.8.01.05.01.05 and C.3.8.01.05.02.04.	10/1/2015	Under NRC Review
LAR 15-19 - Proposed Revision to Technical Specifications (TS) Section 5.0 Regarding Shift Supervisor Title Change	The proposed amendment will change Technical Specifications (TS) Section 5.0, "Administrative Controls" by revising the Shift Supervisor title to Shift Manager.	10/22/2015	Approved on 2/29/16
LAR 15-20 - Increased Concrete Thickness Tolerance for Column Line J-1 and J-2 Walls above 66'-6"	The proposed change revises COL Appendix C (and plant-specific DCD Tier 1) Table 3.3-1 to change the tolerance for the concrete thickness of the column line J-1 and J-2 walls from ±1 inch to a tolerance of -1 inch and +4 inch for a length of 24 inches at the interface of these reinforced concrete walls to structural module connections at the CA20 module.	1/14/2016	Under NRC Review

'Topic	Description of Change	Submittal Date	Status.
LAR 15-21 - Use of Localized Sharing for Composite Places and	The proposed change is to allow use of shoring for the metal deck in the vicinity of penetrations and other openings and as temporary supports in place of an incomplete wall:	1/19/2016	Under NRC Review